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# REPORT

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*2005 Semi-Annual  
Groundwater Monitoring Report  
Former CENCO Refinery  
12345 Lakeland Road  
Santa Fe Springs, California*

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LOS ANGELES REGION

**Isola & Associates, LLP**  
**Lodi, California**

**January 2006**

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BLASLAND, BOUCK & LEE, INC.  
engineers, scientists, economists



*Transmitted Via Federal Express*

January 30, 2006

Mr. Dixon Oriola  
Unit Chief  
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Los Angeles, California 90013

REVIEWED  
06 JUN 31 AM 9:31  
CALIFORNIA REGIONAL WATER  
QUALITY CONTROL BOARD  
LOS ANGELES REGION

Re: 2005 Semi-Annual Groundwater Monitoring Report  
Former CENCO Refining Property  
12345 Lakeland Road  
Santa Fe Springs, California  
SLIC No. 318, Site ID 2040071

Dear Mr. Oriola:

On behalf of Lakeland Development Company, Blasland, Bouck & Lee, Inc. (BBL) is pleased to provide you with the October Semi-Annual Groundwater Monitoring Report for the Former CENCO Refining Property in Santa Fe Springs, California. Presented in this document are the findings of the groundwater monitoring activities conducted from October 4 through October 7, 2005.

Please do not hesitate to contact me at (949) 474-9052 Extension 18 should you have any questions or comments regarding the groundwater monitoring report.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Paris Hajali, Ph.D., P.E.  
Vice President

**Enclosures:** 2005 Semi-Annual Groundwater Monitoring Report

Mr. Dixon Oriola  
January 30 2006  
Page 2 of 2

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UU JAN 31 AM 9:34  
CALIFORNIA STATE WATER  
QUALITY CONTROL BOARD  
LOS ANGELES REGION

REPORT

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U.S. JAN 31 2005  
PROFESSIONAL GEOLOGIST  
QUALITY CONTROLLED  
LOS ANGELES REGION

*2005 Semi-Annual  
Groundwater Monitoring Report  
Former CENCO Refinery  
12345 Lakeland Road  
Santa Fe Springs, California*

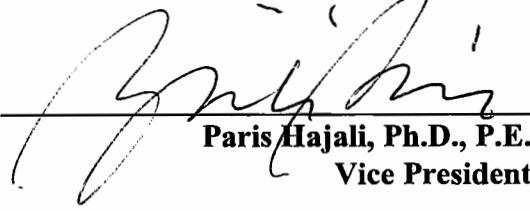
Isola & Associates, LLP  
Lodi, California

January 2006

Respectfully submitted,

BLASLAND, BOUCK & LEE, INC.

  
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**BBL**<sup>®</sup>  
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engineers, scientists, economists

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## **Executive Summary**

Blasland, Bouck & Lee, Inc. has prepared this Semi-Annual Groundwater Monitoring Report on behalf of CENCO Refining Company. This report describes the groundwater monitoring activities performed at the CENCO refinery (site) located at 12345 Lakeland Road in Santa Fe Springs, California, the Lakeland property and the Metropolitan State Hospital property located south of the site, the Bloomfield property located east of the site, and the Walker property located to the southeast (Figure 1). The monitoring event was conducted on October 4 through October 7, 2005 in accordance with the California Regional Water Quality Control Board Los Angeles Region Order No. 85-17.

Groundwater monitoring has been conducted onsite since August 1986. The last groundwater monitoring event was performed by Haley & Aldrich, Inc. in June and July 2004. The semi-annual groundwater monitoring program currently consists of 28 wells as described below (Figure 1):

- Nine onsite groundwater monitoring wells;
- Ten offsite downgradient groundwater monitoring wells on the former Lakeland property and the Metropolitan State Hospital property;
- Four offsite groundwater monitoring wells southeast of the site on the Walker property;
- Three offsite groundwater monitoring wells east of the site on the Bloomfield property; and
- Two onsite deep former water production wells.

The three Bloomfield property wells (MW-106, MW-107, and MW-203), are not currently being monitored as the wells were abandoned (2 wells) or damaged (1 well) due to redevelopment activities. These wells will be monitored following re-installation/repair.

A total of 25 wells (excludes the three abandoned/damaged Bloomfield wells) were gauged to determine groundwater elevation. Of the 25 wells, six were dry and four contained free phase petroleum hydrocarbons (FPPH), and were therefore not sampled. Groundwater samples were collected from 15 wells and analyzed for total petroleum hydrocarbons as gasoline (TPH-g), volatile organic compounds (VOCs) and oxygenates, and hexavalent chromium. In addition, five of these wells were selected for methane, nitrate, sulfate, alkalinity, and ferrous iron analysis to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater.

Results of the October 2005 groundwater monitoring event are in accord with previous events, with some notable observations as follows:

The extent of measurable thicknesses of FPPH has decreased since the previous monitoring event in June 2004, where FPPH was measured in six wells. Only four of those wells were found to contain FPPH during the October 2005 groundwater monitoring event. In addition, decreases in benzene concentrations were measured in MW-204, W-1, W-4, and W-8 since the last sampling event. Slight decreases were also observed for toluene and ethylbenzene concentrations in samples from W-1 and W-4. Benzene concentrations were, however, observed to have increased since the 2004 groundwater sampling event for MW-603, and MW-503B. TPH-g concentrations increased in MW-105, MW-201, MW-204, MW-205, MW-606, and MW-607. Methyl tertiary butyl ether (MTBE) concentrations in wells that were previously not sampled due to the presence of FPPH, had

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detections of MTBE above 1.0 milligrams per liter, and were consistent with previously measured concentrations where data was available. Other constituents of primary concern had concentrations consistent with historical monitoring results.

Results of bioremediation parameters indicate that bioremediation is occurring in at least two locations within the hydrocarbon plume at the site. Further investigation of the viability of bioremediation at the site is needed.

# **1. Introduction**

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Blasland, Bouck & Lee, Inc. (BBL) has prepared this Semi-Annual Groundwater Monitoring Report for Isola and Associates, LLP. This report describes the groundwater monitoring activities performed at the CENCO Refining Company (site) in Santa Fe Springs, California (Figure 1) in accordance with the California Regional Water Quality Control Board Los Angeles Region (RWQCB) Order No. 85-17. The purpose of the groundwater monitoring program is to evaluate groundwater quality in the vicinity of the site.

## **1.1 Site Description**

The site is approximately 55 acres in size and is located at 12345 Lakeland Road in Santa Fe Springs, California (Figure 1). The site is bordered to the north by Florence Avenue, to the south by Lakeland Road, and to the east by Bloomfield Avenue. Commercial/light industrial properties border the site to the west. The site operated as an oil refinery from the 1930s until July 1995. Historical aerial photographs indicate that the western portion of the site may have been used for agricultural purposes from approximately 1928 to 1938. Oil production-related features such as ponds and aboveground holding tanks may have also been located onsite during these years. The refinery is not currently operating; however, many of the structures related to the former oil refinery operations remain on site. These structures are scheduled to be removed from the site prior to the redevelopment of the property for commercial/light industrial use (Haley & Aldrich, Inc., 2005).

Previous refining operations included processing crude oil into several grades of fuel including kerosene, leaded gasoline and aviation fuel, unleaded gasoline, jet fuel, high and low sulfur diesel, fuel oil, and petroleum coke. Soil and groundwater beneath and in proximity to the site have been impacted by past site operations. Soil and groundwater investigations are being conducted pursuant to two Cleanup and Abatement Orders (CAOs 85-17 and 97-118) issued by the RWQCB to Powerine Oil Company (currently CENCO Refining Company) in 1985 and 1997 (Haley & Aldrich, Inc., 2005).

## **1.2 Summary of Groundwater Monitoring Activities**

Groundwater monitoring has been conducted onsite since August 1986. The last groundwater monitoring event was performed by Haley & Aldrich, Inc. in June and July 2004. The semi-annual groundwater monitoring program currently consists of 28 wells as described below (Figure 1):

- Nine onsite groundwater monitoring wells;
- Ten offsite downgradient groundwater monitoring wells on the former Lakeland property and the Metropolitan State Hospital property;
- Four offsite groundwater monitoring wells southeast of the site on the Walker property;
- Three offsite groundwater monitoring wells east of the site on the Bloomfield property; and
- Two onsite deep former water production wells.

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The three Bloomfield property wells (MW-106, MW-107, and MW-203), are not currently being monitored as the wells were abandoned (2 wells) or damaged (1 well) due to redevelopment activities. These wells will be monitored following re-installation/repair.

A total of 25 wells (excludes the three abandoned/damaged Bloomfield wells) were gauged to determine groundwater elevation. Of the 25 wells, six were dry and four contained free phase petroleum hydrocarbons (FPPH), and were therefore not sampled. Groundwater samples were collected from 15 wells and analyzed for total petroleum hydrocarbons as gasoline (TPH-g) by United States Environmental Protection Agency (EPA) Preparation Method 5030B and Method DHS LUFT, volatile organic compounds (VOCs) and oxygenates by EPA Preparation Method 5030B and Method 8260B, and hexavalent chromium by EPA Method 7199. In addition, groundwater samples from five of these wells were analyzed for methane, nitrate, sulfate, alkalinity, and ferrous iron to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater. All samples were transported to Calscience Environmental Laboratories, Inc. (Calscience), under proper chain-of-custody procedures. Calscience is accredited by the California Environmental Protection Agency, Department of Health Services, Environmental Laboratory Accreditation Program.

Water quality parameters including temperature, pH, turbidity, electric conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured in the field.

## **2. Field Methodology**

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### **2.1 Health and Safety**

Field activities were conducted in accordance with a site-specific Health and Safety Plan (HASP) prepared pursuant to 29 Code of Federal Regulations Section 1910.120. The HASP identifies and describes potentially hazardous substances that may be encountered during field operations, personal protective equipment and clothing for site activities, and measures that need to be implemented in the event of an emergency. BBL field personnel reviewed the HASP prior to commencing fieldwork. Prior to initiation of field activities each day, a site safety briefing was conducted to identify potential physical and chemical hazards and measures to be taken in event of an emergency. All on-site personnel were required to sign the site safety briefing form. A RAE Systems MultiRae (or equivalent) was used to monitor flammable vapors, oxygen and hydrogen sulfide, and organic vapors.

### **2.2 Groundwater Level Measurement**

A total of 25 wells (excludes the three abandoned/damaged Bloomfield wells) were gauged on October 4, 2005 to determine groundwater elevation. A total of six wells (MW-101, MW-103, MW-202, MW-501A, MW-601A, and MW-604) were found to be dry (monitoring well MW-604 was found dry when sampling was attempted on October 6, 2005, even though groundwater measurements were successfully taken on October 4, 2005). Free phase petroleum hydrocarbon (FPPH) thickness was measured using an electronic oil-water interface probe prior to the collection of water level measurements. The FPPH thickness and water level measurements were recorded on well measurement forms included in Appendix A. Wells W-7 and W-8 are not included in the groundwater elevation contours because they are former water production wells and are screened in a deeper aquifer than the other wells. When calculating groundwater table elevations, FPPH (if any) was assumed to have a relative density of 0.80.

### **2.3 Groundwater Sampling Methods and Procedures**

Wells were purged using dedicated stingers that were previously installed in the wells. Water quality parameter measurements including temperature, pH, turbidity, electric conductivity, DO, and oxidation-reduction potential were periodically taken from representative grab samples during purging. The measurements were taken with a Horiba U-22 water quality meter and recorded on a groundwater sampling form along with the purge volumes (Appendix A). Well purging continued until at least 3 well-casing volumes had been removed and field parameters had stabilized to within 5 percent of the preceding reading. Groundwater samples were collected after each well recharged to at least 80 percent of its original water level. Groundwater samples were collected using new, disposable bailers equipped with new bailer string and new volatile organic analysis tips. Sample containers were filled to zero headspace, sealed with airtight caps, and labeled.

Water production wells MW-7 and MW-8 historically contained dedicated pumps. However they could not be readily used due to pumping equipment being disconnected. Hand-bailed samples were therefore collected from these wells.

Groundwater samples were not collected from the six dry wells. In addition, samples were not collected from the four wells with FPPH (EW1, MW-600A, MW-504, and W-3A) and the wells that have been abandoned (MW-106, MW-107, and MW-203).

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Groundwater samples collected from a total of 15 wells were placed in an ice-filled cooler and transported to Calscience, following proper chain-of-custody procedures. All 15 groundwater samples were analyzed as follows:

- TPH-g by EPA Preparation Method 5030B and Method DHS LUFT;
- VOCs and oxygenates by EPA Preparation Method 5030B and Method 8260B; and
- Hexavalent chromium by EPA Method 7199.

Additional groundwater samples from five selected wells (MW-205, MW-503B, MW-605, ME-606, and MW-104) were analyzed for the following parameters to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater:

- Methane by Method RSK-175M;
- Nitrate (as N) by EPA Methods 353.3 and 354.1;
- Sulfate by EPA Method 375.4;
- Total Alkalinity (as CaCO<sub>3</sub>) by Method SM 2320B; and
- Ferrous Iron (Iron II) by Method SM 3500-FeD.

### **3. Groundwater Monitoring Results**

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The results of this semi-annual groundwater monitoring event are presented below. A summary of groundwater level measurements, depth to water, depth to hydrocarbons, FPPH thickness, and groundwater elevation is presented in Table 1. Analytical results are summarized in Tables 2 through 4 and complete laboratory reports are included in Appendix B. A comparison of available data from this monitoring event and the previous June 2004 monitoring event is presented in Table 5.

#### **3.1 Groundwater Surface Elevation**

The groundwater surface elevation was calculated for each well by subtracting the water level measurement from the top of casing elevation (Table 1). Groundwater elevations were adjusted for wells with FPPH which was assumed to have a relative density of 0.80. This is the mean density value for various petroleum hydrocarbon mixtures. Groundwater elevations are shown on Figure 3.

Based on the groundwater level measurements obtained on October 4, 2005, groundwater beneath the site vicinity ranges in depth from 89.53 to 104.78 feet below ground surface (bgs). Groundwater elevations have increased by an average of 1.3 feet since June 2004 (Haley & Aldrich, 2004).

The average groundwater gradient across the properties is approximately 0.01 feet per foot (ft/ft) as shown in Figure 3. Groundwater flow direction varies in the vicinity of the site from a south-southwesterly direction in the northeastern portion of the site to a south-southeasterly direction beneath the Metropolitan State Hospital property. These flow directions are consistent with those historically reported in previous investigations.

#### **3.2 Free-Phase Petroleum Hydrocarbons**

FPPH (light non-aqueous phase liquid) was detected in four monitoring wells during this sampling event. FPPH was measured with thicknesses of 1.00, 1.72, and 3.66 feet in wells EW-1, MW-600A, and W-3A, respectively. FPPH was not detected in well MW-504 during initial gauging, but was detected following purging. FPPH was detected in six wells (EW-1, MW-600A, W-3A, MW-103, MW-502, and MW-504) with thicknesses ranging from approximately 0.02 to 3.05 feet during the previous groundwater monitoring event in June and July 2004 (Haley & Aldrich, 2004). FPPH thickness and depth to product are shown on Table 1.

FPPH has been observed in well EW-1 since 1990 and based on characterization analysis performed in 2001 these hydrocarbons consist primarily of diesel fuel and gasoline range hydrocarbons. The source of the FPPH detected in EW-1 is not known. CENCO has only owned one pipeline located beneath Lakeland Road, just north of EW-1. This pipeline was only used for transport of crude oil and is not believed to be a source of the FPPH found in EW-1 (Haley & Aldrich, 2004).

#### **3.3 Groundwater Analytical Results**

A total of 15 groundwater samples were collected during this groundwater monitoring event on October 5 through October 7, 2005 (Figure 2). All groundwater samples collected were analyzed for total petroleum TPH-g, VOCs and oxygenates, and hexavalent chromium. Additional groundwater samples from five selected wells were analyzed for methane, nitrate, sulfate, alkalinity, and ferrous iron to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater. Analytical results are summarized in Tables 2 through 4 and complete laboratory reports are included in Appendix B.

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It is important to recognize that the results presented in this report do not distinguish between facility and non-facility related constituents in groundwater.

### **3.3.1 TPH-g**

TPH-g was detected in 12 of the 15 samples analyzed (Table 2). Concentrations ranged from 0.15 milligrams per liter (mg/L) in well MW-603 to 15 mg/L in well MW-502. The maximum detected TPH-g concentration during the previous sampling event in June 2004 was 5.9 mg/L in well MW-503B (Table 5). TPH-g results obtained during this monitoring event appear to be similar to those from June 2004. The largest increase in TPH-g concentration from 2004 to 2005 was seen in well MW-201. TPH-g was detected at a concentration of 1.70 mg/L in 2004 and 3.4 mg/L in 2005. Reduction in TPH-g concentration was observed in wells MW-503B, W-1, and W-8. The largest decrease in TPH-g concentration was 0.5 mg/L from June 2004 to October 2005 in well MW-503B.

### **3.3.2 VOCs and Oxygenates**

A summary of VOC and oxygenate analytical results is presented in Table 2. A comparison of available VOC and oxygenate data from this monitoring event and the June 2004 monitoring event is presented in Table 3.

Methyl tertiary butyl ether (MTBE) was detected in four of the 15 groundwater samples analyzed. Concentrations ranged from 0.0017 mg/L in well MW-607 to 15 mg/L in well MW-502. The California Maximum Containment Level (MCL) for MTBE in drinking water is 0.005 mg/L. MTBE concentrations do not appear to have significantly changed since the sampling event in June 2004 (Table 5). Tert-butyl alcohol (TBA) was detected in eight of the 15 samples analyzed with a maximum concentration of 0.13 mg/L in well MW-201. The analytical results for TBA for the 2005 event are consistent with the 2004 results.

Benzene was detected in 11 of the 15 samples analyzed. Detected benzene concentrations ranged from 0.00052 mg/L in well W-8 to 1.1 mg/L in well MW-503B. The California MCL for benzene in drinking water is 0.001 mg/L. The benzene concentrations in well MW-503B increased from 0.16 mg/L to 1.1 mg/L from June 2004 to October 2005. Benzene concentrations also increased by approximately 0.62 mg/L in well MW-201 and slightly in wells MW-205, MW-603, MW-606, and W-4. A decrease in benzene concentrations was observed in wells MW-607, MW-204, and W-1. The concentration in well MW-607 decreased from 0.01 mg/L in June 2004 to 0.0012 mg/L during this sampling event. Wells MW-204 and W-1 decreased by approximately 0.024 mg/L and 0.097 mg/L, respectively.

Toluene was detected in one well (MW-201) at a concentration of 0.037 mg/L. Toluene was detected in five wells, in addition to MW-201, during the June 2004 sampling event at concentrations ranging from 0.0018 mg/L to 0.037 mg/L. All toluene detections were below the California MCL of 0.15 mg/L. Ethylbenzene was detected in four of the 15 samples analyzed. Ethylbenzene concentrations ranged from 0.0042 mg/L in well MW-204 to 0.47 mg/L in well MW-201. The California MCL for ethylbenzene in drinking water is 0.3 mg/L. The chemical p/m-xylene was detected in four wells and o-xylene was detected in one well during this sampling event. The chemical p/m-xylene was detected at concentrations ranging from 0.0021 mg/L in well MW-204 to 0.11 mg/L in well MW-502 and o-xylene was detected at a concentration of 0.018 mg/L in well MW-201. Analytical results for ethylbenzene and xylenes were similar to those from the June 2004 sampling event.

The only other oxygenate detected during this sampling event was di-isopropyl ether (DIPE). DIPE was detected in one well (MW-105) at a concentration of 0.0021 mg/L, only slightly above the laboratory reporting limit.

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In addition to those discussed above, 20 VOCs were detected during this sampling event. The constituents are as follows with the frequency of detection shown in parenthesis: acetone (5), n-butylbenzene (1), sec-butylbenzene (3), chloroethane (1), chloroform (1), 1,4-dichlorobenzene (1), 1,1,-dichloroethane (1,1-DCA) (3), 1,2,-dichloroethane (4), 1,1-dichloroethene (1,1-DCE) (2), cis-1,2,-dichloroethene (7), trans-1,2-dichloroethene (3), isopropylbenzene (6), p-isopropylbenzene (1), naphthalene (1), n-propylbenzene (6), tetrachloroethene (PCE) (3), trichloroethene (TCE) (3), 1,2,4-trimethylbenzene (2), 1,3,5-trimethylbenzene (3), and vinyl chloride (6).

The highest VOC concentrations were of TCE and PCE, which were detected at maximum concentrations of 0.15 mg/L and 0.16 mg/L, respectively in well MW-603. These concentrations exceed the California MCLs for PCE and TCE in drinking water of 0.005 mg/L. The next highest VOC concentrations were found in 1,1-dichloroethene, naphthalene, n-propylbenzene, and 1,3,5-trimethylbenzene which were detected at maximum concentrations of 0.10 mg/L to 0.12 mg/L.

Historical records indicate that there are no known or suspected sources of halogenated VOCs to groundwater from former refinery operations. Therefore, these compounds most likely originated from off site sources (Haley & Aldrich, 2004).

### **3.3.3 Hexavalent Chromium**

Hexavalent chromium was only detected in one of the 15 samples analyzed. Hexavalent chromium was detected at a concentration of 0.002 mg/L in well MW-606, only slightly above the reporting limit of 0.001 mg/L. A summary of hexavalent chromium results is presented in Table 4.

### **3.3.4 Distribution of Constituents**

Analysis of groundwater collected from MW-105, an upgradient well at the north boundary of the property, resulted in TPH-g detected at a slightly higher value than in the previous monitoring event. TBA was also detected in this upgradient well. The presence of these COPCs in the upgradient well indicate the presence of off-site, upgradient sources.

The highest concentrations of TPH-g detected during this sampling event were from wells located on the northwest portion of the properties, within a relatively small area (Figure 3). TPH-g was detected at concentrations of 15 mg/L, 5.4 mg/L, and 3.4 mg/L in wells MW-502, MW-503B, and MW-201, respectively. Monitoring wells MW-502 and MW-503B are located on the former Lakeland property and well MW-201 is located at the southwest corner of the CENCO property. VOCs including 1,1-DCA, 1,1-DCE, cis-1,2-dichloroethene, ethylbenzene, n-propylbenzene, and 1,2,4-trimethylbenzene were also detected in these wells.

While the footprint of impacted groundwater has not changed shape or size substantially since the 2004 groundwater monitoring event, benzene and TPH-g concentrations have increased substantially in the area of MW-504, MW-503B, and MW-502. Increases in measured concentrations may be related to sampling of monitoring wells that were previously not sampled due to the presence of FPPH. Historical laboratory analytical results, to be included in Appendix C, were not available at the time of this report preparation. Tabulated historical data will be included in the next groundwater monitoring report.

### **3.3.5 Bioremediation Results**

A summary of the results of the bioremediation indicator parameters is presented in Table 5. The parameters pH, DO, and ORP were measured in the field. Analyses were conducted in the laboratory for methane, nitrate, sulfate, total alkalinity, and ferrous iron. Field parameter data was collected from 13 monitoring wells (the two former production wells were not purged) and laboratory analyses were performed on five wells. These five wells (MW-104A, MW-205, MW-503B, MW-605, and MW-606) were previously selected for the evaluation of bioremediation potential based on their location. Details of the study design, including the well selection process, are provided in the 2004 Semi-Annual Groundwater Monitoring Report (Haley & Aldrich, 2004).

#### **3.3.5.1 Field Parameters**

The parameters pH, DO, and ORP were measured in the field using a Horiba U-22 water quality meter. The probe was inserted into a grab water sample that was collected between the vacuum truck and the stinger. It is important to note that the vacuum stinger method used to purge the wells can interfere with the field parameter tests. Therefore in-situ conditions can vary from recorded data.

pH - This parameter is a measurement of the acidity or alkalinity of a solution, and ranged from 7.04 to 7.92 in the 13 wells measured. This indicates a neutral to slightly alkaline environment.

Dissolved Oxygen (DO) - This parameter is the preferred electron acceptor in the biodegradation of petroleum hydrocarbons. As aerobic biodegradation occurs, DO concentrations are reduced by aerobic respiration. The DO concentrations ranged from 5.99 mg/L to 9.79 mg/L.

Oxidation Reduction Potential (ORP) - This parameter is a measure of electron activity. The ORP values are generally negative under reducing conditions (gaining electrons) and positive under oxidizing conditions (losing electrons). Anaerobic biodegradation has a tendency to create reducing conditions (negative ORP readings). Negative ORP readings were observed in five wells (MW-105, MW- 205, MW-503B, MW-607, and W-1) ranging from -15 millivolts (mV) to -93 mV.

#### **3.3.5.2 Laboratory Parameters**

Methane is a by-product dissolved gas created during methanogenic reducing activity indicative of biodegradation. Methane is typically detected once dissolved oxygen, sulfate and nitrate have been utilized. Therefore as methane concentrations increase, dissolved oxygen, sulfate and nitrate concentrations typically decrease. Methane was detected in all five wells at concentrations ranging from 0.00125 mg/L in well MW-605 to 3.33 mg/L in well MW-205.

Nitrate may be used as an electron acceptor for anaerobic biodegradation if the dissolved oxygen has been depleted in groundwater. Nitrate is reduced to nitrite during this process. The decreased levels of dissolved nitrate in wells containing higher concentrations of hydrocarbons generally indicate denitrification is occurring. Nitrate was detected in two of the five wells at concentrations of 8.3 mg/L (MW-605) and 3.0 mg/L (MW-606).

Sulfate may be used as an electron acceptor for anaerobic biodegradation, when dissolved oxygen and nitrate are depleted. The decreased concentrations of sulfate in wells with the highest concentrations of petroleum

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hydrocarbons indicate biodegradation is occurring. Sulfate was detected in all five wells at concentrations ranging from 24 mg/L to 180 mg/L. The lowest sulfate concentrations were 24 mg/L in well MW-503B and 63 mg/L in MW-205.

Total alkalinity results from the presence of hydroxides, carbonates, and bicarbonates. Biodegradation in groundwater may result in increased alkalinity. Total alkalinity ranged from 500 mg/L to 3,600 mg/L. The highest alkalinity was found in wells MW-503B and MW-205 at concentrations of 730 mg/L and 3,600 mg/L, respectively.

Ferric iron ( $\text{Fe}^{+3}$ ) may be used as an electron acceptor during anaerobic degradation of petroleum hydrocarbons and is then reduced to ferrous iron ( $\text{Fe}^{+2}$ ). Ferrous iron was only detected in one of the five wells (MW-205) at a concentration of 0.44 mg/L.

### **3.3.6 Analysis of Bioremediation Results**

During this groundwater monitoring event, the highest TPH-g levels in wells sampled for bioremediation indicator parameters were found in wells MW-503B and MW-205 at concentrations of 5.4 mg/L and 0.85 mg/L, respectively. Therefore these are the wells in which we would most likely observe evidence of bioremediation. DO was measured at 5.99 mg/L and 9.35 mg/L and ORP was -93 millivolts (mV) and -15 mV in wells MW-503B and MW-205, respectively. Well MW-503B with the highest level of TPH-g did have the lowest concentration of DO and the most negative ORP, both indicative of bioremediation activities. DO in well and MW-205 was relatively high, however the ORP was negative. Therefore, the potential of biodegradation exists.

The highest concentrations of methane were detected in wells MW-503B and MW-205 at concentrations of 3.33 mg/L and 1.38 mg/L, respectively. In addition, the highest alkalinity was found in these two wells. Alkalinity was detected in MW-503B at a concentration of 730 mg/L and in MW-205 at 3,600 mg/L. Elevated methane and alkalinity indicate that bioremediation may be occurring in these wells. Nitrate was not detected in these two wells, which could indicate it has been depleted during anaerobic biodegradation. The lowest sulfate concentrations detected were 24 mg/L in well MW-503B and 63 mg/L in MW-205. Ferrous iron was only detected in one of the five wells (MW-205) at a concentration of 0.44 mg/L. Low sulfate and elevated ferrous iron concentrations are also evidence of potential bioremediation.

The results of the bioremediation indicator parameters indicate that bioremediation may be occurring in at least two wells in the site vicinity. However, additional data is needed to further assess the groundwater environment and potential biodegradation activities.

### **3.3.7 Quality Control/ Quality Assurance (QA/QC)**

Field activities were documented in dedicated field notebooks and appropriate control samples were collected. One trip blank (provided by the laboratory) accompanied each daily groundwater sample shipment to the laboratory for a total of three trip blanks. Trip blanks assess potential sample contamination from transportation and storage of samples. Duplicate samples, which assess the precision of the laboratory analysis, were collected from two wells (MW-105 and MW-605) during this groundwater sampling event. The trip blanks were analyzed for VOCs by EPA Method 8260B. The duplicates followed the same analysis protocols as the primary samples. Equipment blanks were not collected because dedicated stingers were used to purge the wells and new disposable bailers were used for sampling, therefore eliminating a mechanism for cross-contamination. Method

---

blanks were analyzed by the laboratory to assess possible cross contamination between samples during laboratory analysis.

Duplicate samples (MW-105-1005-D and MW-605-1005-D) were analyzed for TPH-g, VOCs and oxygenates and hexavalent chromium. In addition, duplicate sample MW-605-1005-D was analyzed for methane, nitrate, sulfate, total alkalinity, and ferrous iron. Duplicate sample results are shown on Tables 2 through 4, along with the primary sample results. Precision of laboratory analysis was evaluated as the relative percent difference (RPD) between duplicate sample results. RPD criteria reported by the laboratory were used to assess precision. All RPDs were within the appropriate control limits with the exception of one. TCE in QC sample 05-10-0327-4 analyzed on October 7, 2005 was slightly above the RPD control limit. According to Calscience, the matrix spike (MS)/matrix spike duplicate (MSD) RPD was out of control due to matrix interference. The laboratory control sample (LCS) and LCS duplicate samples (LCSD) RPD was in control and, therefore, the sample data were reported without further clarification.

The trip blank and method blank data showed non-detectable levels for all constituents. Trip blank sample results are shown on Table 4. The complete laboratory reports are provided in Appendix B.

## **4. Conclusions**

Groundwater monitoring was performed at the former CENCO refinery site in October 2005 as part of ongoing groundwater monitoring efforts intended to evaluate chemical impacts, contaminant sources, and overall groundwater quality at the site. This groundwater monitoring event included gauging 25 wells in the CENCO monitoring well network (not including three abandoned/damaged wells that could not be gauged), analysis for VOCs and hexavalent chromium in 15 wells, and additional bioremediation parameter (methane, nitrate, sulfate, total alkalinity, ferrous iron, pH, DO, and ORP) sampling from five of the wells.

A relatively steep groundwater gradient of approximately 0.01ft/ft was observed for the recent groundwater monitoring event, which is consistent with historical gradient data for the site. Overall, groundwater levels have risen by an average of 1.3 feet since the last measurement, taken in June 2004. The rising water levels may be attributed to measurement during a time of groundwater recharge (autumn) instead of the dry season (mid summer) and to greater annual precipitation in the region.

FPPH was measured in four wells (EW-1, MW-600A, MW-504, and W-3A) within the CENCO monitoring well network. FPPH observed in MW-600A may originate from a source on the CENCO site, as proposed by Haley & Aldrich (2004); however, FPPH observed in both EW-1 and W-3A likely originate from northeast of the site, based on local groundwater flow direction. Thicknesses detected within the wells do not necessarily reflect FPPH thickness in the surrounding aquifer, as fluctuations in water level and permeability factors can influence FPPH accumulation in monitoring wells.

Groundwater monitoring results at the site are generally consistent with historical observations and analyses. The number of wells in which FPPH was observed has decreased from six in June 2004 to only four in October 2005. Benzene concentrations decreased in MW-204, W-1, W-4, and W-8 since the last sampling event. Slight decreases were also observed for toluene and ethylbenzene in W-1 and W-4. Well MW-502 formerly had FPPH accumulations detected, and was therefore not sampled in June 2004, however it was free of FPPH during the October 2005 sampling event, and laboratory analysis resulted in detections of TPH-g, MTBE, benzene, ethylbenzene, and p/m xylenes. Benzene, ethylbenzene and MTBE exceeded the California MCLs in this sample.

Benzene had a substantial increase in concentration since the 2004 groundwater sampling event for MW-603, and MW-503B.

Hexavalent chromium was demonstrated to be generally below detection limits and in all cases below California MCLs during the October 2005 sampling event.

Intrinsic bioremediation continues to be viable, in at least some areas of the site, based on conditions measured in the subsurface. Nitrate, sulfate, ferrous iron, methane, alkalinity, and ORP indicate the potential for intrinsic bioremediation exists in the vicinity of the site.

## **5. References**

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Haley & Aldrich, Inc. 2004. *Draft 2004 Semi-Annual Groundwater Monitoring Report, CENCO Refinery, Santa Fe Springs, California* (October 18, 2004).

Haley & Aldrich, Inc. 2005. *Additional Site Investigation Work Plan, CENCO Refining Company* (May 9, 2005).

## ***Tables***

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**TABLE 1**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS**

**2005 SEMI-ANNUAL GROUNDWATER MONITORING REPORT**  
**ISOLA ASSOCIATES, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet- msl)	Corrected Depth to Groundwater (feet)
EW-1	NM	100.12	98.40	1.72	13.66	112.40	98.74
MW-101	92.70	Dry	NA	0	Dry	135.23	NA
MW-103	94.55	Dry	NA	0	Dry	136.95	NA
MW-104A	97.60	89.85	NA	0	51.31	141.16	89.85
MW-105	100.15	91.03	NA	0	47.60	138.63	91.03
MW-106			Abandoned			148.41	NA
MW-107			Abandoned			148.93	NA
MW-201	101.52	93.07	NA	0	39.84	132.91	93.07
MW-202	92.59	Dry	NA	0	Dry	137.89	NA
MW-203			Abandoned			143.89	NA
MW-204	99.68	97.86	NA	0	42.28	140.14	97.86
MW-205	98.25	92.00	NA	0	46.04	138.04	92.00
MW-501A	92.58	Dry	NA	0	Dry	NM	NA
MW-502	100.49	94.90	NA	0	33.40	128.30	94.90
MW-503B	108.60	95.34	NA	0	34.62	129.96	95.34
MW-504**	95.85	95.12	NM	NM	NM	134.51	NM
MW-600A	NM	92.62	89.46	3.16	30.25	120.34	90.09
MW-601A	89.40	Dry	NA	0	Dry	126.53	NA
MW-603	97.28	89.53	NA	0	29.01	118.54	89.53
MW-604*	103.14	102.78	NA	0	35.38	138.16	102.78
MW-605	94.03	91.22	NA	0	23.32	114.54	91.22
MW-606	99.16	94.21	NA	0	19.68	113.89	94.21
MW-607	106.80	104.78	NA	0	21.25	126.03	104.78
W-1	129.63	102.95	NA	0	39.94	142.89	102.95
W-3A	104.55	104.55	103.55	1.00	20.25	124.00	103.75
W-4	129.07	104.36	NA	0	38.02	142.38	104.36
W-7***	NM	87.97	NA	0	NM	NM	NA
W-8***	NM	69.18	NA	0	NM	NM	NA

**Notes:**

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness)

NA- Not Applicable.

NM- Not Measured.

Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product.

\* Monitoring well MW-604 was found dry when sampling was attempted on 10/6/2005.

\*\* Monitoring well MW-504 did not have hydrocarbons present during initial gauging, but following purging, hydrocarbons were measured.

\*\*\*Former production wells W-7 and W-8 were never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer).

msl - mean sea level.

**TABLE 2**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES IN GROUNDWATER**

**2005 SEMI-ANNUAL GROUNDWATER MONITORING REPORT  
ISOLA ASSOCIATES, LLP  
FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA**

### **Notes:**

Note: Only detected compounds are shown on table

Total Petroleum Hydrocarbons as gasoline (TPH-g) was analyzed using EPA Preparation Method 5030B and Method DHS LUFT.

Volatile Organic Compounds (VOCs) were analyzed using EPA Preparation Method 5030B and EPA Method 8260B.

Volatile Organic Compounds (VOCs) were analyzed.  
ND - Not detected at the indicated reporting limit.

ND - Not detected at the  
NA - Not analyzed

NA - Not analyzed.  
mg/l - Milligrams per liter

mg/L - Milligrams per liter.  
MCL - California Department of Health Services 2002 maximum contaminant level

MCL- California Department of Health Services

**Bold** indicates detected value.

**Highlighted values exceed the California**

**NA- No MCL available**

**TABLE 3**  
COMPARISON OF 2004 AND 2005 GROUNDWATER MONITORING DATA

2005 SEMI-ANNUAL GROUNDWATER MONITORING REPORT  
ISOLA ASSOCIATES, LLP  
FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	TPH-g		MTBE		TBA		Benzene		Toluene		Ethylbenzene		p/m-Xylene		o-Xylene	
	Jun-2004	Oct-2005	Jun-2004	Oct-2005	Jun-2004	Oct-2005	Jun-2004	Oct-2005	Jun-2004	Oct-2005	Jun-2004	Oct-2005	Jun-2004	Oct-2005	Jun-2004	Oct-2005
MW-104A	ND<0.2	ND<0.10	ND<0.005	ND<0.001	<b>0.03J</b>	<b>0.083</b>	ND<0.005	ND<0.0005	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
MW-105	<b>0.27</b>	<b>0.30</b>	ND<0.005	ND<0.001	ND<0.1	<b>0.025</b>	ND<0.005	ND<0.0005	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
MW-201	<b>1.7</b>	<b>3.4</b>	ND<0.005	ND<0.005	ND<0.1	<b>0.13</b>	<b>0.12</b>	<b>0.74</b>	<b>0.012</b>	<b>0.037</b>	<b>0.21J</b>	<b>0.47</b>	<b>0.058</b>	<b>0.073</b>	<b>0.013</b>	<b>0.018</b>
MW-204	<b>0.26</b>	<b>0.34</b>	ND<0.005	ND<0.001	<b>0.15</b>	<b>0.09</b>	<b>0.03</b>	<b>0.0057</b>	ND<0.005	ND<0.001	<b>0.0076</b>	<b>0.0042</b>	ND<0.005	<b>0.0021</b>	ND<0.005	ND<0.001
MW-205	ND<0.2	<b>0.85</b>	ND<0.005	ND<0.001	ND<0.1	ND<0.01	<b>0.003J</b>	<b>0.055</b>	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
MW-502	FP	<b>15</b>	FP	<b>15</b>	FP	ND<1.0	FP	<b>0.90</b>	FP	ND<0.10	FP	<b>0.430</b>	FP	<b>0.11</b>	FP	ND<0.10
MW-503B	<b>5.9</b>	<b>5.4</b>	ND<0.005	ND<0.02	ND<0.1	ND<0.20	<b>0.16</b>	<b>1.1</b>	<b>0.037</b>	ND<0.02	<b>0.089</b>	<b>0.073</b>	<b>0.042</b>	<b>0.038</b>	ND<0.005	ND<0.02
MW-603	ND<0.2	<b>0.15</b>	ND<0.005	ND<0.001	ND<0.1	ND<0.01	ND<0.005	<b>0.00082</b>	<b>0.0003J</b>	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
MW-605	ND<0.2	ND<0.10	ND<0.005	ND<0.001	ND<0.1	ND<0.01	ND<0.005	ND<0.0005	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
MW-606	ND<0.2	<b>0.240</b>	<b>0.003J</b>	<b>0.0048</b>	ND<0.1	<b>0.042</b>	ND<0.005	<b>0.0056</b>	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
MW-607	<b>0.54</b>	<b>0.76</b>	<b>0.004J</b>	<b>0.0017</b>	<b>0.05J</b>	<b>0.074</b>	<b>0.01</b>	<b>0.0012</b>	ND<0.005	ND<0.001	ND<0.005	ND<0.001	<b>0.0014</b>	ND<0.001	ND<0.005	ND<0.001
W-1	<b>0.46</b>	<b>0.31</b>	<b>0.003J</b>	<b>0.025</b>	ND<0.1	<b>0.34</b>	<b>0.14</b>	<b>0.043</b>	<b>0.0028</b>	ND<0.001	<b>0.0015</b>	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
W-4	<b>0.35</b>	<b>0.35</b>	ND<0.005	ND<0.001	ND<0.1	<b>0.047</b>	<b>0.03</b>	<b>0.031</b>	<b>0.0026</b>	ND<0.001	<b>0.0019</b>	ND<0.001	ND<0.005	ND<0.001	ND<0.005	ND<0.001
W-7	NS	ND<0.1	NS	ND<0.001	NS	ND<0.01	NS	ND<0.0005	NS	ND<0.001	NS	ND<0.001	NS	ND<0.001	NS	ND<0.001
W-8	<b>0.39</b>	<b>0.22</b>	ND<0.005	ND<0.001	ND<0.1	ND<0.01	<b>0.0019J</b>	<b>0.00052</b>	<b>0.0018</b>	ND<0.001	<b>0.00072</b>	ND<0.001	<b>0.00066</b>	ND<0.001	ND<0.005	ND<0.001

**Notes:**

All results in milligrams per liter.

NA- Not Applicable.

NM- Not Measured.

ND - Not detected at the indicated reporting limit.

NS - No sample collected.

FP - Free phase petroleum hydrocarbons detected, no sample collected.

Maximum concentrations from duplicate samples from October 2005 sampling event are shown.

June 2004 data is from the *Draft Semi-annual Groundwater Monitoring Report* prepared by Haley & Aldrich, Inc., dated October 18, 2005.

Bold indicates detected value.

J - Compound detected at estimated value indicated.

**TABLE 4**  
**SUMMARY OF HEXAVALENT CHROMIUM IN GROUNDWATER**

**2005 SEMI-ANNUAL GROUNDWATER MONITORING REPORT**  
**ISOLA ASSOCIATES, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Sample ID	Sample Date	Hexavalent Chromium [milligrams per liter [mg/L])
MW-104A-1005	10/7/2005	ND<0.001
MW-105-1005	10/6/2005	ND<0.001
MW-105-1005-D	10/6/2005	ND<0.001
MW-201-1005	10/7/2005	ND<0.001
MW-204-1005	10/7/2005	ND<0.001
MW-205-1005	10/6/2005	ND<0.001
MW-502-1005	10/5/2005	ND<0.001
MW-503B-1005	10/5/2005	ND<0.001
MW-603-1005	10/6/2005	ND<0.001
MW-605-1005	10/5/2005	ND<0.001
MW-605-1005-D	10/5/2005	ND<0.001
MW-606-1005	10/5/2005	<b>0.002</b>
MW-607-1005	10/5/2005	ND<0.001
W-1-1005	10/6/2005	ND<0.001
W-4-1005	10/6/2005	ND<0.001
W-7-1005	10/7/2005	ND<0.001
W-8-1005	10/6/2005	ND<0.001

**Notes:**

Hexavalent Chromium was analyzed using EPA Method 7199.

ND - Not detected at the indicated reporting limit.

NA- Not analyzed.

Bold indicates detected value.

**TABLE 5**  
**SUMMARY OF BIOREMEDIATION PARAMETER RESULTS IN GROUNDWATER**

**2005 SEMI-ANNUAL GROUNDWATER MONITORING REPORT**  
**ISOLA ASSOCIATES, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Sample ID	Sample Date	Laboratory Analytical Methods					Field Test Methods		
		Methane (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Total Alkalinity (mg/L)	Ferrous Iron (mg/L)	pH	DO (mg/L)	ORP (mV)
MW-104A-1005	10/7/2005	<b>0.0695</b>	ND<0.10	<b>89</b>	<b>570</b>	ND<0.10	<b>7.31</b>	<b>7.9</b>	<b>41</b>
MW-105-1005	10/6/2005	NA	NA	NA	NA	NA	<b>7.19</b>	<b>9.79</b>	<b>-71</b>
MW-201-1005	10/7/2005	NA	NA	NA	NA	NA	<b>7.04</b>	<b>7.88</b>	<b>11</b>
MW-204-1005	10/7/2005	NA	NA	NA	NA	NA	<b>7.42</b>	<b>8.18</b>	<b>25</b>
MW-205-1005	10/6/2005	<b>3.33</b>	ND<0.10	<b>63</b>	<b>3,600</b>	<b>0.44</b>	<b>7.41</b>	<b>9.35</b>	<b>-15</b>
MW-502-1005	10/5/2005	NA	NA	NA	NA	NA	<b>7.85</b>	<b>7.29</b>	<b>8</b>
MW-503B-1005	10/5/2005	<b>1.38</b>	ND<0.10	<b>24</b>	<b>730</b>	ND<0.10	<b>7.92</b>	<b>5.99</b>	<b>-93</b>
MW-603-1005	10/6/2005	NA	NA	NA	NA	NA	<b>7.62</b>	<b>7.73</b>	<b>96</b>
MW-605-1005	10/5/2005	<b>0.00125</b>	<b>8.3</b>	<b>180</b>	<b>500</b>	ND<0.10	<b>7.64</b>	<b>9.32</b>	<b>124</b>
MW-605-1005-D	10/5/2005	ND<0.001	<b>8.3</b>	<b>170</b>	<b>500</b>	ND<0.10	NA	NA	NA
MW-606-1005	10/5/2005	<b>0.178</b>	<b>3.0</b>	<b>170</b>	<b>540</b>	ND<0.10	<b>7.70</b>	<b>8.63</b>	<b>117</b>
MW-607-1005	10/5/2005	NA	NA	NA	NA	NA	<b>7.65</b>	<b>7.19</b>	<b>-72</b>
W-1-1005	10/6/2005	NA	NA	NA	NA	NA	<b>7.42</b>	<b>8.62</b>	<b>-89</b>
W-4-1005	10/6/2005	NA	NA	NA	NA	NA	<b>7.61</b>	<b>8.7</b>	<b>67</b>

**Notes:**

Methane was analyzed using Method RSK-175M.

Nitrate (as N) was analyzed using EPA Methods 353.3 and 354.1.

Sulfate was analyzed using EPA Method 375.4.

Total Alkalinity (as CaCO<sub>3</sub>) was analyzed using Method SM 2320B.

Ferrous Iron (Iron II) was analyzed using Method SM 3500-FeD.

DO - Dissolved Oxygen (measured in milligrams per liter [mg/L]).

ORP - Oxidation/Reduction Potential (measured in millivolts [mV]).

ND - Not detected at the indicated reporting limit.

NA- Not analyzed.

Bold indicates detected value.

## *Figures*

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**REFERENCE:** BASE MAP USGS 7.5 MIN. QUAD., WHITTIER, CA. 1965, PHOTOREVISED 1981.

Approximate Scale: 1" = 2000'

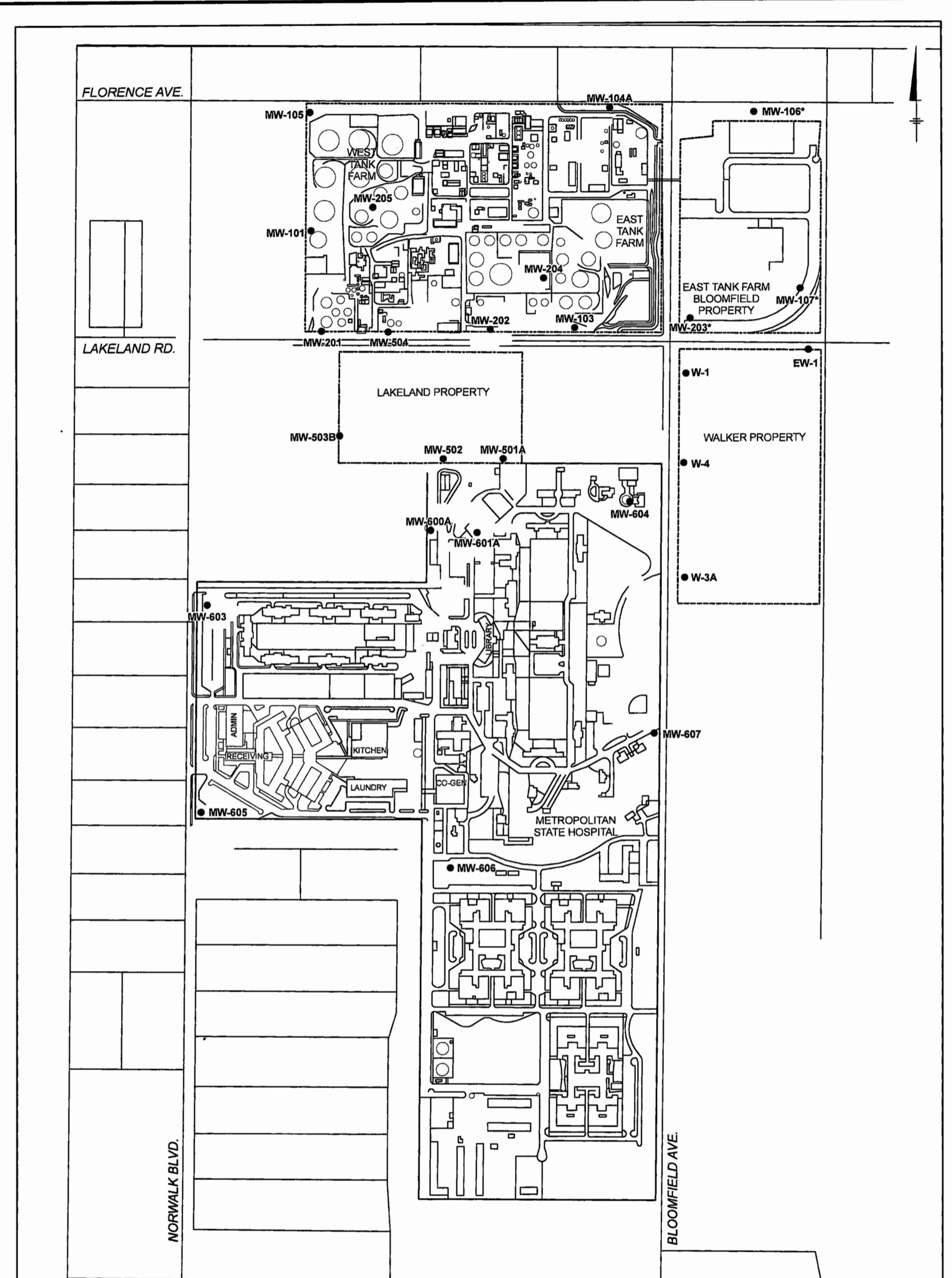
**Approximate Scale: 1" = 2000'**



ISOLA AND ASSOCIATES LLP  
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SANTA FE SPRINGS, CALIFORNIA

## SITE LOCATION MAP

## **FIGURE 1**



**LEGEND:**

- MONITORING WELL LOCATION
- CENCO PROPERTY
- FORMER LAKELAND PROPERTY
- METROPOLITAN STATE HOSPITAL
- WALKER PROPERTY BOUNDARY

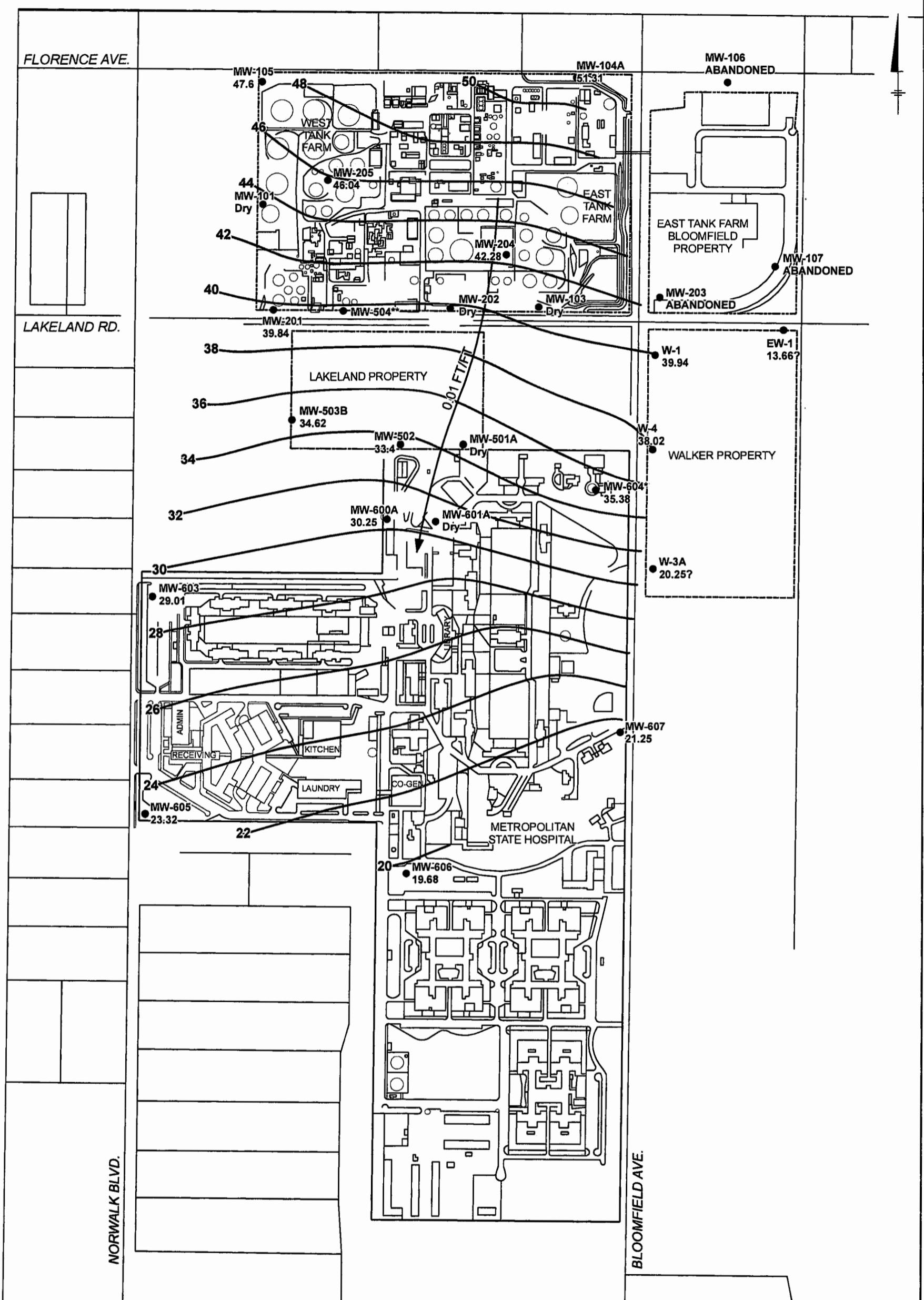
**NOTE:**

1. \* WELL ABANDONED

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**SITE PLAN**

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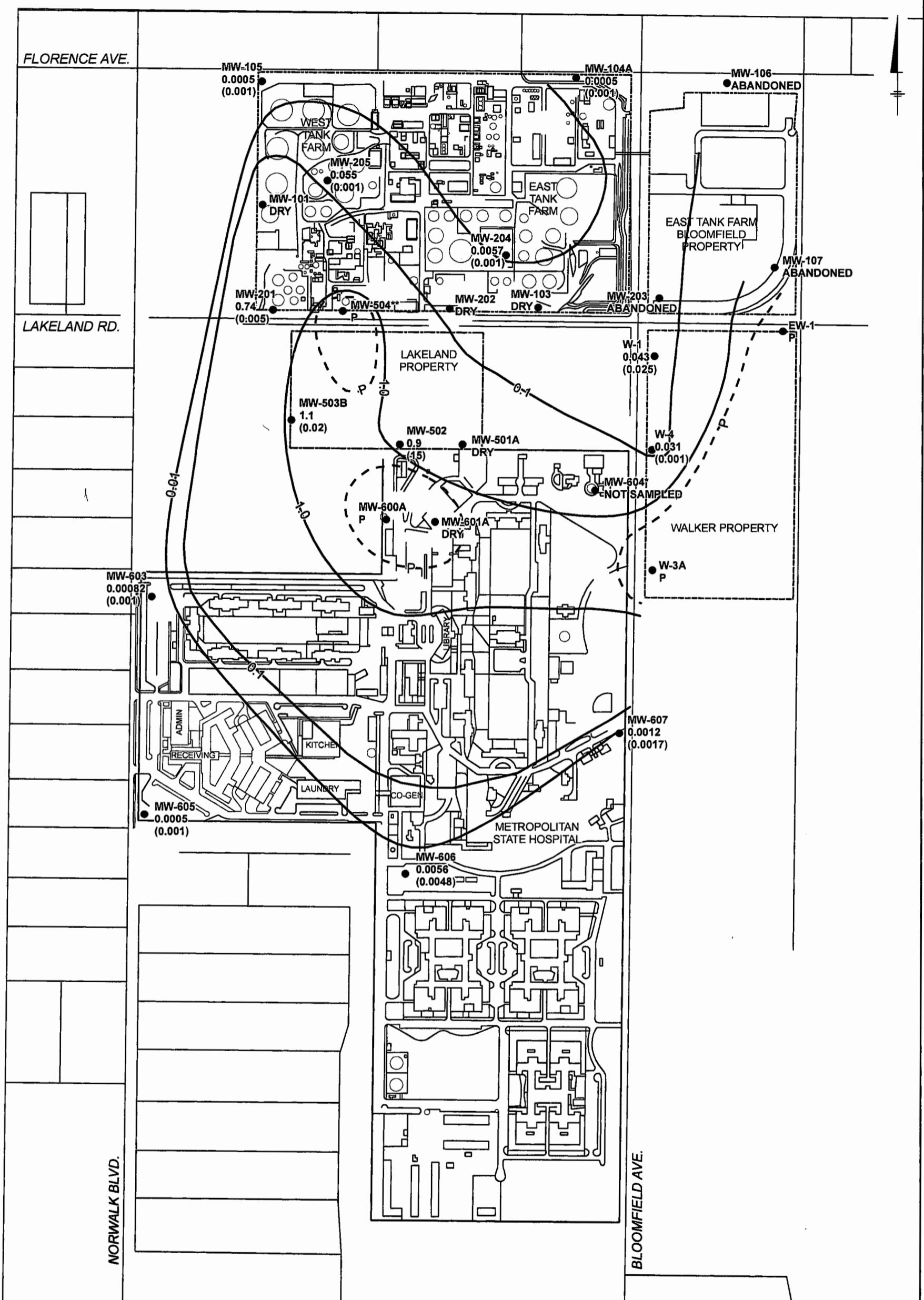


**LEGEND:**

- MW-607 MONITORING WELL LOCATION ID  
23.47 GROUNDWATER ELEVATION (ft-msl)
- 24 — GROUNDWATER ELEVATION CONTOUR (ft-msl)
- CENCO PROPERTY
- FORMER LAKELAND PROPERTY
- METROPOLITAN STATE HOSPITAL
- WALKER PROPERTY BOUNDARY

**NOTES:**

1. \* MONITORING WELL MW-604 DID NOT RECOVER AFTER PURGING WHEN SAMPLING WAS ATTEMPTED ON 10/6/2005.
2. \*\* MONITORING WELL MW-504 DID NOT HAVE HYDROCARBONS PRESENT DURING INITIAL GAUGING, BUT FOLLOWING PURGING, HYDROCARBONS WERE MEASURED.
3. ? GROUNDWATER ELEVATION NOT CONSISTENT WITH REGION AND WAS EXCLUDED FROM INTERPOLATION.



**LEGEND:**

- 1.1 (0.02) MONITORING WELL LOCATION ID BENZENE CONCENTRATION (mg/kg)
- 0.1 BENZENE CONCENTRATION (mg/kg)
- P APPROXIMATE FREE PRODUCT BOUNDARY
- CENCO PROPERTY
- FORMER LAKELAND PROPERTY
- METROPOLITAN STATE HOSPITAL
- WALKER PROPERTY BOUNDARY

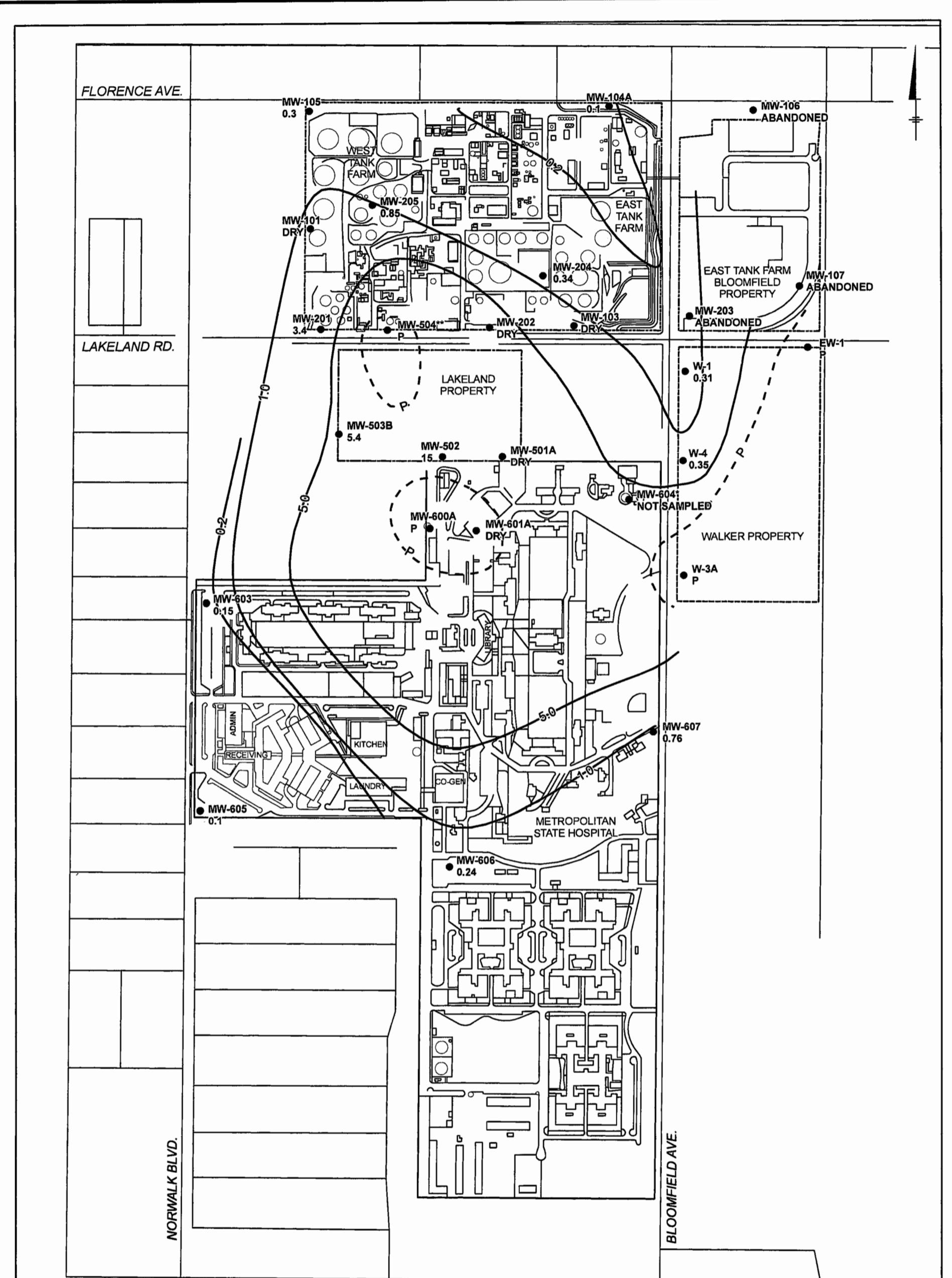
**NOTES:**

- \* MONITORING WELL MW-604 DID NOT RECOVER AFTER PURGING WHEN SAMPLING WAS ATTEMPTED ON 10/6/2005.
- \*\* MONITORING WELL MW-504 DID NOT HAVE HYDROCARBONS PRESENT DURING INITIAL GAUGING, BUT FOLLOWING PURGING, HYDROCARBONS WERE MEASURED.

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FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

**BENZENE ISOCONCENTRATION CONTOURS  
AND MTBE CONCENTRATIONS IN  
GROUNDWATER OCTOBER 2005**

**BBL**  
BLASLAND, BOUCK & LEE, INC.  
engineers, scientists, economists



LEGEND:

- MW-105 MONITORING WELL LOCATION ID  
0.3 TPHG CONCENTRATION (mg/kg)
- 1.0 TPH-G CONCENTRATION (mg/kg)
- P APPROXIMATE FREE PRODUCT BOUNDARY
- CENCO PROPERTY
- FORMER LAKELAND PROPERTY
- METROPOLITAN STATE HOSPITAL
- WALKER PROPERTY BOUNDARY

NOTES:

1. \* MONITORING WELL MW-604 DID NOT RECOVER AFTER PURGING WHEN SAMPLING WAS ATTEMPTED ON 10/6/2005
2. \*\* MONITORING WELL MW-504 DID NOT HAVE HYDROCARBONS PRESENT DURING INITIAL GAUGING, BUT FOLLOWING PURGING, HYDROCARBONS WERE MEASURED.

ISOLA AND ASSOCIATES LLP  
FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

GASOLINE RANGE PETROLEUM HYDROCARBON  
ISOCONCENTRATION CONTOURS  
GROUNDWATER OCTOBER 2005

**BBL**<sup>®</sup>  
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engineers, scientists, economists

FIGURE  
5

## ***Appendices***

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## ***Appendix A***

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### **Groundwater Monitoring Field Forms**



## GROUNDWATER SAMPLING FORM

Site Name : Former Cenex Refinery  
 Project Number : 54 202.001  
 Recorded by : Megan Smaskey

Well Number W-1  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 10-06-05 Time: 1105

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch 4-Inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 129.63

Water Level Depth (WL in feet BTOC) 102.45

Number Of Well Volumes to be Purged (# Vols) 3  
 4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other -Type VACUUM TRUCK

#### PURGE VOLUME CALCULATION

$$(\frac{129.63}{\text{TD (feet)}} - \frac{102.45}{\text{WL (feet)}}) \times \frac{4}{\text{D (inches)}} \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{17.3}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

54 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

NA

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
11:28	18	27.2	7.56	2.67	9.49
11:35	36	24.7	7.41	2.62	8.67
11:45	54	24.9	7.42	2.62	8.62

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
126	~93				
90.5	-103				
72.5	-89				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc): \_\_\_\_\_

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1215

Depth to Water : 103.11

\* Sample Collection Time : 1215

W-1-1005

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number W-4  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 10-06-05 Time: 1000

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4

2-inch     4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 129.07

Water Level Depth (WL in feet BTOC) : 104.36

Number Of Well Volumes to be Purged (# Vols)  $\Rightarrow 3$

4      5      10      Other

3

#### PURGE VOLUME CALCULATION

$$(\frac{TD \text{ (feet)}}{WL \text{ (feet)}}) \times \frac{4}{D \text{ (inches)}} \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{16.1}{\text{Calculated Purge Volume}} \text{ gallons}$$

ONE WELL VOLUME:

#### VOLUME GENERATED

48 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	DO (mg/L)	Turbidity (NTU)	ORP (mV)
10:00	5	24.4	7.57	2.12	9.66		
10:06	16	23.6	7.51	2.09	8.33		
10:14	32	23.9	7.62	2.15	8.42		
10:39	48	25.7	7.61	2.14	8.70		

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
10:05					
11:08					
11:59					
10:21	+ 67				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal:

### WELL SAMPLING

#### SAMPLING METHOD

SAMPLE COLLECTION TIME: 1045 1145 W-4-1005

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1145

Depth to Water: 105.93'

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

# GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54203  
 Recorded by : MEGAN SMOLY

Well Number W-7  
 Well Type: Monitor Extraction Other: Production Well  
 Date: 10/07/05 Time: 1430

## WELL PURGING

**PURGE VOLUME** N/A - DID NOT PURGE

Casing Diameter (D in inches)

2-inch    4-inch    6-inch    Other UNKNOWN    PRODUCTION WELL;  
 LARGE DIAMETER

Total Depth of Casing (TD in feet BTOC) UNKNOWN    WELL; COULD NOT  
 GAUGE TOTAL  
 DEPTH OF WELL.

Water Level Depth (WL in feet BTOC) : 87.97

**PURGE METHOD** N/A

Bailer - Type

Submersible    Centrifugal    Bladder

Other -Type

DID NOT PURGE

Number Of Well Volumes to be Purged (# Vols)

4    5    10    Other Ø

**PURGE VOLUME CALCULATION**

**VOLUME GENERATED**

$$(\frac{TD \text{ (feet)}}{WL \text{ (feet)}} \times \frac{D^2}{D \text{ (inches)}} \times \# \text{ Vols}) \times 0.0408 = \text{Calculated Purge Volume} \quad \text{gallons}$$

Ø gallons

**PURGE TIME** N/A

**PURGE RATE** N/A

**CONTROLLER SETTING**

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**WELL PARAMETER MEASUREMENTS**

Time	Volume (gallons)	Temp (F)	pH	EC (mg/cm or $\mu$ s/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal:

## WELL SAMPLING

**SAMPLING METHOD**

W-7-1005

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1450

Depth to Water: 87.97'

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

# GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REANERY  
 Project Number : 54203  
 Recorded by : MEGAN SMITH

Well Number W-8  
 Well Type: Monitor Extraction Other: PRODUCTION WELL  
 Date: 10/06/05 Time: 1618

## WELL PURGING

PURGE VOLUME: NA - DID NOT PURGE

PURGE METHOD: NA

Casing Diameter (D in inches) \_\_\_\_\_

Bailer - Type \_\_\_\_\_

2-inch    4-inch    6-inch    Other UNKNOWN LARGE PRODUCTION  
WELL, LARGE  
DIAMETER WELL.

Submersible    Centrifugal    Bladder

Total Depth of Casing (TD in feet BTOC) UNKNOWN COULD NOT GAUGE  
TOTAL DEPTH OF

Other - Type \_\_\_\_\_

Water Level Depth (WL in feet BTOC): 69.18 WELL

DID NOT PURGE

Number Of Well Volumes to be Purged (# Vols)

4    5    10    Other Ø

PURGE TIME (TIME TO RECHARGE):

NO TIME GENERATED

$$(\frac{TD \text{ (feet)}}{WL \text{ (feet)}} \times \frac{^2}{D \text{ (inches)}} \times \# \text{ Vols}) \times 0.0408 = \text{Calculated Purge Volume} \quad \text{gallons}$$

Ø gallons

PURGE TIME: N/A

PURGE RATE: N/A

GENERATION TIME: N/A

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

FIELD PARAMETER MEASUREMENT:

Time	Volume (gallons)	Temp (F)	pH	EC (ms/cm or $\mu\text{s}/\text{cm}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level

Observations During Purging (Turbidity, Color, Odor, Well Condition etc): \_\_\_\_\_

Discharge Water Disposal: \_\_\_\_\_

## WELL SAMPLING

SAMPLING METHOD: W-8-1005

Sample at 80% (Minimum recharge)

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

(Sample Turbidity < 5 NTU)

Bailer Type: DISPOSABLE

Sampling Time (80%) Recharge: 1625

Depth to Water: 69.98'

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW-104A  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 10-07-05 Time: 0905

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 97.60

Water Level Depth (WL in feet BTOC) : 89.85

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE VOLUME CALCULATION

$$(\frac{97.60 - 89.85}{\text{TD (feet)}} \times \frac{4}{\text{D (Inches)}} \times \frac{3}{\# \text{ Vols}}) \times 0.0408 = \frac{5.0}{\text{Calculated Purge Volume}} \text{ gallons}$$

ONE WELL VOLUME:

#### VOLUME GENERATED

15 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm

#### CONTROLLER SETTING

Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	Conductivity $\mu\text{mho}$	Water Level
0910	5	23.5	7.26	2.49	7.36
0925	10	23.5	7.26	2.46	7.33
0936	15	23.2	7.31	2.47	7.90

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
>1000	+14				
>1000	+22				
>1000	+41				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum) recharge)

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1100

Depth to Water: 89.86

④ SAMPLE COLLECTION TIME: 1100 MW-104A-1005

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW-105  
 Well Type: Monitor Extraction Other:  
 Date: 10-06-05 Time: 1330

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 100.15

Water Level Depth (WL in feet BTOC) 91.03

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other -Type VACUUM TRUCK

#### PURGE VOLUME CALCULATION

$$(\frac{100.15 - 91.03}{\text{TD (feet)}} \times \frac{4}{\text{D (inches)}} \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{5.9}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

18 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Turbidity (NTU) 5.0 VRF (mV) 10.0

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
13:34	6	23.9	7.19	2.39	10.44
13:38	12	24.9	7.59	2.33	9.92
13:43	18	23.9	7.19	2.00	9.79

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
3:00	~25				
2:15	~33				
2:41	~71				

Observations During Puring (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1400

Depth to Water : 91.03

MW-105-1005

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : POTOMAC CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLLEY

Well Number MW-201  
 Well Type: Monitor Extraction Other:  
 Date: 10-07-05 Time: 0958

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch     4-inch    6-inch    Other

Total Depth of Casing (TD in feet BTOC) 101.52

Water Level Depth (WL in feet BTOC) 93.07

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other Type VACUUM TRUCK

#### PURGE VOLUME CALCULATION

$$\frac{(101.52 - 93.07)}{\text{TD (feet)}} \times \frac{4}{\text{WL (feet)}} \times \frac{3}{\text{D (Inches)}} \times \frac{0.0408}{\# \text{ Vols}} = \frac{5.5}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### ONE WELL VOLUME:

#### VOLUME GENERATED

18 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

DO (g/L) TURBIDITY (NTU) ORP (mV)

Time	Volume (gallons)	Temp (F)	pH	Conductivity (Siemens)	Water Level
1008	6	24.0	7.01	2.03	8.73
1014	12	23.3	7.04	1.98	8.01
1021	18	23.7	7.04	1.97	7.88

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
644.0	+14				
436.0	+9				
535.0	+11				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc): \_\_\_\_\_

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

\* SAMPLE COLLECTION TIME: 1030 MW-201-1005

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type: DISPOSABLE

Sampling Time (80%) Recharge: 1030

Depth to Water: 93.10

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW-204  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 10-07-05 Time: 0807

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch    4-inch    6-inch    Other

Total Depth of Casing (TD in feet BTOC) 99.68    Bent: fixed    TD: 98.34

Water Level Depth (WL in feet BTOC): 97.86    WL: 96.19

Number Of Well Volumes to be Purged (# Vols)

4    5    10    Other 3

#### PURGE METHOD

Baller - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other-Type VACUUM TRUCK

#### PURGE VOLUME CALCULATION

$$\left( \frac{98.34 - 96.19}{\text{TD (feet)}} \times \frac{4}{\text{D (inches)}} \times \frac{3}{\# \text{ Vols}} \right) \times 0.0408 = \frac{1.4}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

10 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

DO (g/L)    Turbidity (NTU)    ORP (mV)

Time	Volume (gallons)	Temp (F)	pH	Conductivity (µm)	Water Level
0812	3	21.6	7.53	2.04	9.01
0815	5	22.1	7.43	2.00	8.44
0818	7	21.9	7.40	2.00	8.34
0821	9	21.8	7.42	2.00	8.18

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
464.0	+ 32				
724.0	+ 25				
154.0	+ 23				
144.0	+ 25				

Observations During Purgging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal:

### WELL SAMPLING

#### SAMPLING METHOD

Sample Collection Time: 0835

MW-204-1005

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Baller Type: DISPOSABLE

Sampling Time (80%) Recharge: 0835

Depth to Water: 96.22'

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MN - 205  
 Well Type: Monitor Extraction Other:  
 Date: 10-06-05 Time: 1442

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch  4-inch  6-inch  Other

Total Depth of Casing (TD in feet BTOC) 98.25

Water Level Depth (WL in feet BTOC) : 92.00

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type

Submersible  Centrifugal  Bladder

Other - Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$(\frac{98.25 - 92.00}{\text{TD (feet)}} \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\# \text{ Vols}}) \times 0.0408 = \frac{4.1}{\text{Calculated Purge Volume}} \text{ gallons}$$

ONE PURGE VOLUME =

#### VOLUME GENERATED

20 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz N/A

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level
1445	5	26.9	7.42	1.98	10.67
1450	10	23.6	7.44	1.97	10.51
1453	15	23.8	7.43	1.96	9.76
1457	20	23.2	7.41	1.96	9.35

Turbidity 00 (NTU) ORP (mV)

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
195.0	+ 111				
118.0	+ 27				
82.6	- 42				
73.6	- 15				

Observations During Puring (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1500

Depth to Water : 92.04

SAMPLE COLLECTION TIME: 1500 MN-205-1005

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54262.00  
 Recorded by : MEGAN SMOLEY

Well Number MW502  
 Well Type: Monitor Extraction Other:  
 Date: 10-05-05 Time: 1028

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch 4-inch 6-inch Other

Total Depth of Casing (TD in feet BTOC) 100.49

Water Level Depth (WL in feet BTOC) 94.90

Number Of Well Volumes to be Purged (# Vols) 3

4 5 10 Other 3

#### PURGE VOLUME CALCULATION

$$\frac{(100.49 - 94.9)}{\text{TD (feet)}} \times \frac{\pi}{4} \times \frac{1}{\text{D (inches)}} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{3.6}{\text{Calculated Purge Volume}} \text{ gallons}$$

ONE WELL VOLUME

#### VOLUME GENERATED

15 gallons

#### PURGE TIME

Start Stop Elapsed

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial gpm Final gpm Initial Hz Final Hz

#### FIELD PARAMETER MEASUREMENT

DO (g/L)

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level
A7 26.0	1046	5	26.7	7.87	2.07 8.29
B 42.9	1051	10	26.8	7.86	2.09 7.96
A8 27.3	1058	15	26.5	7.85	2.08 7.29

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal:

### WELL SAMPLING

#### SAMPLING METHOD

(+) NEED ADDITIONAL AIR ASSIST TUBING (N15)

SAMPLE TIME: N00

MW-502-1005

- Sample at 80% (Minimum) recharge
- (Sample Turbidity < 10 NTU)
- Baller Type: DISPOSABLE
- Sampling Time (80%) Recharge: 100
- Depth to Water: 94.94

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW-503B  
 Well Type: Monitor Extraction Other:  
 Date: 10-05-05 Time: 0920

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch  4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 108.60

Water Level Depth (WL in feet BTOC) 95.34

Number Of Well Volumes to be Purged (# Vols)  $\Rightarrow 3$

4      5      10      Other 3

#### PURGE VOLUME CALCULATION

$$(\frac{108.60 - 95.34}{TD \text{ (feet)}}) \times \frac{4}{D \text{ (inches)}}^2 \times \frac{3}{\# \text{ Vols}} = \frac{8.62}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### PURGE METHOD

Other -  Bailer - Type VACUUM TRUCK

Submersible      Centrifugal      Bladder

Other - Type \_\_\_\_\_

#### VOLUME GENERATED

36 gallons

#### PURGE TIME

0920 Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

DB (g/L)

Turb	Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level
-70 NTU	0925	9	25.2	7.14	1.78	9.36
-5.0	0933	18	24.7	7.85	1.76	8.35
-27	0939	27	24.9	7.93	1.77	7.70
-93	0948	36	24.3	7.92	1.76	5.99

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal:

### WELL SAMPLING

#### SAMPLING METHOD

Sample Collected At 1600

MW-503B-1005

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type: DISPOSABLE

Sampling Time (80%) Recharge: 1600

Depth to Water: 95.35

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER OENCO REFINERY  
 Project Number : 54202 . 00  
 Recorded by : MEGAN SMOLEY

Well Number MW-504  
 Well Type: Monitor Extraction Other:  
 Date: 10/06/05 Time: 1555

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in Inches) 4"

2-inch 4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 95.85

Water Level Depth (WL in feet BTOC) : 95.12

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other-Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\left( \frac{95.85 - 95.12}{\text{TD (feet)}} \right) \times \frac{4}{\text{D (Inches)}}^2 \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{0.47}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

N/A

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

DO (mg/L) | Turbidity | BOD  
(NTU) | (mv)

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) : No free product initially during gauging, but free product entered during purging.  
 Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

No sample collected - product in well

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type :

Sampling Time (80%) Recharge:

Depth to Water :

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW - 603  
 Well Type: Monitor Extraction Other:  
 Date: 10-06-05 Time: 0850

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 97.28

Water Level Depth (WL in feet BTOC) : 89.53

Number Of Well Volumes to be Purged (# Vols)  $\Rightarrow 3$

4    5    10    Other    3

#### PURGE VOLUME CALCULATION

$$(\frac{97.28}{\text{TD (feet)}} - \frac{89.53}{\text{WL (feet)}}) \times \frac{4}{\text{D (Inches)}} \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{5.0}{\text{Calculated Purge Volume}} \text{ gallons}$$

ONE WELL VOLUME :

#### VOLUME GENERATED

19 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level
0852	5	21.4	7.47	1.81	8.53
0857	11	21.2	7.68	1.87	8.27
0900	15	21.7	7.62	1.93	7.73

TURBIDITY  $\frac{\text{m}}{\text{DO (g/L)}}$  ORP (MV)

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
>1000	+9.5				
>1000	+9.2				
974	+9.6				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

4 SAMPLE COLLECTION TIME : 0905

MW - 603 - 1005

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 0905

Depth to Water :

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW-604  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 10-05-05 Time: 0722

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch  4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 103.14

Water Level Depth (WL in feet BTOC) 102.78

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

N/A

Baller - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other - Type \_\_\_\_\_

#### PURGE VOLUME CALCULATION

$$(\frac{103.14}{\text{TD (feet)}} - \frac{102.78}{\text{WL (feet)}}) \times \frac{4}{\text{D (inches)}}^2 \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{0.23}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

0 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

N/A

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

DO (mg/L) Turbidity (NTU) ORP (mV)

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc): Water found during gauging was only in endcap. well dry when purged.

### WELL SAMPLING

#### SAMPLING METHOD

DRY - NO SAMPLE COLLECTED.

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Baller Type :

Sampling Time (80%) Recharge:

Depth to Water :

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLY

Well Number MW-605  
 Well Type Monitor Extraction Other:  
 Date: 10-10-05 Time: 1400

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) 4"

2-inch     4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 94.03

Water Level Depth (WL in feet BTOC) : 91.22

Number Of Well Volumes to be Purged (# Vols) 3

4      5      10      Other 3

#### PURGE VOLUME CALCULATION

$$\frac{(94.03 - 91.22)}{\text{TD (feet)}} \times \frac{4}{\text{WL (feet)}}^2 \times \frac{3}{\text{D (Inches)}} \times \frac{0.0408}{\# \text{ Vols}} = \frac{1.8}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### ONE WELL VOLUME :

#### VOLUME GENERATED

14 gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

n/a

#### CONTROLLER SETTING

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

(g/L) Turbidity  
 DO ORP  
 (NTU) (mV)

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level
1409	5	27.8	7.64	2.07	9.19
1415	8	26.0	7.68	2.04	9.34
1420	11	26.3	7.61	2.02	9.37
1426	14	26.3	7.69	2.02	9.32

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
7100	+104				
7100	+115				
816.0	+122				
306.0	+124				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) : \_\_\_\_\_  
 Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum) recharge)

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1515

Depth to Water: 91.44

1515 MW-605-1005 / MW-605-1005-D

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLY

Well Number MW-606  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 10-05-05 Time: 1550

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in Inches) 4"

2-inch     4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 99.16'

Water Level Depth (WL in feet BTOC) 94.21'

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

#### ONE WELL VOLUME

#### VOLUME GENERATED

$$\frac{(99.16 - 94.21)}{\text{TD (feet)}} \times \frac{4}{\text{WL (feet)}} \times \frac{4}{\text{D (inches)}} \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{3.2}{\text{Calculated Purge Volume}} \text{ gallons}$$

20 gallons

#### PURGE TIME

#### PURGE RATE

N/A

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

Time	Volume (gallons)	Temp (F)	pH	Conductivity S/cm	Water Level DO <sup>(g/L)</sup> Turb <sup>(NTU)</sup> ORP <sup>(mV)</sup>	Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
1558	5	28.5	7.86	1.85	10.42	788.0	+104				
1605	10	26.9	7.75	1.78	9.01	354.0	+115				
1611	15	26.1	7.73	1.71	8.58	290.0	+117				
1616	20	26.0	7.70	1.71	8.62	303.0	+117				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal: \_\_\_\_\_

### WELL SAMPLING

#### SAMPLING METHOD

SAMPLE COLLECTION TIME: 1625

MW-606-1005

Sample at 80% (Minimum) recharge

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1625

Depth to Water :

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : FORMER CENCO REFINERY  
 Project Number : 54202.001  
 Recorded by : MEGAN SMOLEY

Well Number MW-607  
 Well Type: Monitor Extraction Other:  
 Date: 10-05-05 Time: 1255

**WELL PURGING**

**PURGE VOLUME**

Casing Diameter (D in inches) 4"

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 106.80

Water Level Depth (WL in feet BTOC) : 104.78

Number Of Well Volumes to be Purged (# Vols) 3

4      5      10      Other 3

**PURGE VOLUME CALCULATION**

$$(\frac{106.80 - 104.78}{TD \text{ (feet)}}) \times \frac{4}{D \text{ (inches)}}^2 \times \frac{3}{\# \text{ Vols}} \times 0.0408 = \frac{1.3}{\text{Calculated Purge Volume}} \text{ gallons}$$

**ONE WELL VOLUME**

**VOLUME GENERATED**

14      gallons

**PURGE TIME**

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

N/A

**CONTROLLER SETTING**

**FIELD PARAMETER MEASUREMENT**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

DO <sup>(g/L)</sup> Turb. <sup>(NTU)</sup> ORP <sup>(mV)</sup>

Time	Volume (gallons)	Temp (F)	pH	Conductivity <sup>S/cm</sup>	Water Level
1305	5	26.9	7.86	2,38	16.45
1307	8	25.1	7.65	2.29	9.42
1310	11	25.6	7.71	2.27	8.89
1318	14	25.9	7.65	2.28	7.19

Time	Volume (gallons)	Temp (F)	pH	Conductivity	Water Level
883.0	-43				
413.0	-60				
452.0	-78				
381.0	-72				

Observations During Purging (Turbidity, Colour, Odor, Well Condition etc) :

Discharge Water Disposal: \_\_\_\_\_

**WELL SAMPLING**

**SAMPLING METHOD**

SAMPLE TIME : 1325

MW-607-1005

Sample at 80% (Minimum) recharge)

(Sample Turbidity < 10 NTU)

Bailer Type : DISPOSABLE

Sampling Time (80%) Recharge: 1325

Depth to Water: 104.68

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

# **NIETO & SONS TRUCKING, INC.**

License # 673912  
1281 Brea Canyon Road • Brea, CA 92821  
Mail Address: P.O. Box 760 • Yorba Linda, CA 92885-0760  
(714) 990-6855 • FAX (714) 990-4862

## DAILY TICKET

**DT 92980**

**JOB DATE**

10 / 5 / 05

**Su M Tu W Th F Sa**

COMPANY SOLD TO <b>BELSHIRE ENVIRONMENTAL SERVICES</b>	ORDER DATE / /	ORDER TIME	P.O. NUMBER <b>117383</b>
ORDERED BY <b>LARRY/BRIAN</b>	JOB SITE <b>Cenoco Oil Refinery</b>		
JOB SITE CONTACT <b>BBL - Megan (818) 359-0332</b>	<b>12345 Lakeland</b>		
	<b>Santa Fe Springs</b>		

DRIVER <i>Rashadrena</i>	HELPER *****	TRUCK NO. <i>256</i>	TRAILER NO. *****	TRUCK NO. *****	START TIME <i>6:00 a.m.</i>
-----------------------------	-----------------	-------------------------	----------------------	--------------------	--------------------------------

**DESCRIPTION OF WORK REQUESTED**  
**THERE AT: 7:00 a.m. FLUID FROM WELLS ON SITE - OFF LOAD FLUID ON SITE**

**\* BRING RESPIRATOR & BE READY TO WEAR - Day 1 of 3 on site**

ESTIMATED WELLS: ±         WELL TRUCK:  YES  NO  
EQUIPMENT NEEDED:         XX

**STINGERS** **AIR ASSIST REQUIRED:**  YES  NO  
**FEET OF EXTRA HOSE** **BIO-SLURP:**  YES  NO **XX**

DRIVER'S TIME REPORT									
DATE	YARD DEPART	JOB ARRIVE	JOB DEPART	DUMP SITE ARRIVE	DUMP SITE DEPART	YARD ARRIVE	LUNCH	TOTAL HOURS	
10 / 5 / 05	6 AM	7:00 AM	5:45 pm	XXX	XXX	XXX	/		

WORK PERFORMED: off load on site OF  
MANIFEST #: \_\_\_\_\_ GALLONS: \_\_\_\_\_ # OF WELLS: 5 # OF DRUMS: \_\_\_\_\_ # OF TANKS: \_\_\_\_\_

AIR ASSIST LINE INSTALLED TODAY:  YES  NO      AIR ASSIST USED:  YES  NO      SOLIDS/SILT \_\_\_\_\_%

**SPECIAL EQUIPMENT USED (HOSES, FITTINGS, STINGERS):**

SPECIAL EQUIPMENT USED (HOSES, FITTINGS, STINGERS): \_\_\_\_\_

~~Wells~~ all wells are about 100 ft

Purged 5 wells all wells are about 100 ft deep wells have air assist tubing and stingers off loaded winter on site.

STINGERS USED

DRIVER SIGNATURE	TRUCK NUMBER	CUSTOMER SIGNATURE	DATE
D. Johnson	256	X Mungo Eason	10/05/10

**\*\*\* 24 HOUR SERVICE \*\*\***

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# NIETO & SONS TRUCKING, INC.

License # 673912

1281 Brea Canyon Road • Brea, CA 92821  
Mail Address: P.O. Box 760 • Yorba Linda, CA 92885-0760  
(714) 990-6855 • FAX (714) 990-4862

## DAILY TICKET

DT 92995

(2) JOB DATE

10 / 6 / 05

Su M Tu W Th F Sa

COMPANY SOLD TO <b>BELSHIRE ENVIRONMENTAL SERVICES</b>	ORDER DATE / /	ORDER TIME	P.O. NUMBER <b>117383</b>
ORDERED BY <b>LARRY/BRIAN</b>	JOB SITE <b>Cenco Oil Refinery</b>		
JOB SITE CONTACT <b>BBL - Megan (818) 359-0332</b>	12345 Lakeland		
	Santa Fe Springs		

DRIVER <i>Richard Duran</i>	HELPER *****	TRUCK NO. <b>238</b>	TRAILER NO. *****	TRUCK NO. *****	START TIME <b>6:00 a.m.</b>
--------------------------------	-----------------	-------------------------	----------------------	--------------------	--------------------------------

DESCRIPTION OF WORK REQUESTED					
THERE AT: 7:00 a.m. <b>FLUID FROM WELLS ON SITE - OFF LOAD FLUID ON SITE</b>					
BRING RESPIRATOR & BE READY TO WEAR - Day 2 of 3 on site					

XX HAZ/NON-HAZ TO <b>off load on site</b>	OFF LOAD ON SITE <b>XXX</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20 BBL / 100 BBL <b>XXX</b>
ESTIMATED WELLS: ± _____			WELL TRUCK: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
EQUIPMENT NEEDED: <b>30</b>	STINGERS	AIR ASSIST REQUIRED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<b>XX</b>
	FEET OF EXTRA HOSE	BIO-SLURP: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<b>XX</b>

DRIVER'S TIME REPORT								
DATE <b>10 / 6 / 05</b>	YARD DEPART <b>6 AM</b>	JOB ARRIVE <b>8 AM</b>	JOB DEPART <b>5 PM</b>	DUMP SITE <b>XXXXXX XXXXXXXX XXXXXXXX</b>	DUMP SITE <b>XXXXXX XXXXXXXX XXXXXXXX</b>	YARD ARRIVE	LUNCH	TOTAL HOURS

WORK PERFORMED <b>off load on site OF</b>	# OF <b>GALLONS:</b> <i>φ</i>	# OF <b>WELLS:</b> <b>7</b>	# OF <b>DRUMS:</b> <i>φ</i>	# OF <b>TANKS:</b> <i>φ</i>
AIR ASSIST LINE INSTALLED TODAY: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	AIR ASSIST USED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SOLIDS/SILT <i>φ</i> %		
SPECIAL EQUIPMENT USED (HOSES, FITTINGS, STINGERS): <b>WATER SAMPLE Job</b>				
<b>AIR ASSIST LINE FOR ONE WELL 100 FT</b>				
<b>BRASS FITTINGS FOR 5 WELLS</b>				
STINGERS USED		<b>100 FT</b>		

DRIVER SIGNATURE <i>Richard Duran</i>	TRUCK NUMBER <b>238</b>	CUSTOMER SIGNATURE <i>X myneElms</i>	DATE <b>10/6/05</b>
--	----------------------------	---	------------------------

\*\*\*24 HOUR SERVICE\*\*\*

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# NIETO & SONS TRUCKING, INC.

License # 673912

1281 Brea Canyon Road • Brea, CA 92821  
Mail Address: P.O. Box 760 • Yorba Linda, CA 92885-0760  
(714) 990-6855 • FAX (714) 990-4862

## DAILY TICKET

DT 93006

JOB DATE

10 / 7 / 05

Su M Tu W Th F Sa

COMPANY SOLD TO <b>BELSHIRE ENVIRONMENTAL SERVICES</b>	ORDER DATE / /	ORDER TIME	P.O. NUMBER <b>117383</b>
ORDERED BY <b>LARRY/BRIAN</b>	JOB SITE <b>Cenoco Oil Refinery</b>		
JOB SITE CONTACT <b>BBL - Megan (818) 359-0332</b>	12345 Lakeland		
	Santa Fe Springs		

DRIVER <i>Richard Duran</i>	HELPER *****	TRUCK NO. <b>238</b>	TRAILER NO. *****	TRUCK NO. *****	START TIME <b>6:00 a.m.</b>
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DESCRIPTION OF WORK REQUESTED.					
THERE AT: 7:00 a.m. FLUID FROM WELLS ON SITE - OFF LOAD FLUID ON SITE					
BRING RESPIRATOR & BE READY TO WEAR - Day 3 of 3 on site					
XXXXXX HAZ/NON-HAZ TO	off load on site	OFF LOAD ON SITE: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	70 BBL 100 BBL <b>XX</b>		
ESTIMATED WELLS:	±	WELL TRUCK: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
EQUIPMENT NEEDED:	30 STINGERS	Air Assist Required	AIR ASSIST REQUIRED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
FEET OF EXTRA HOSE			BIO-SLURP: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <b>XX</b>		

DRIVER'S TIME REPORT								
DATE <b>10 / 7 / 05</b>	YARD DEPART <b>6 AM</b>	JOB ARRIVE <b>7 AM</b>	JOB DEPART <b>11:30</b>	DUMP SITE <b>XXXXXX XXXXXXXX XXXXXXXX</b>	DUMP SITE <b>XXXXXX XXXXXXXX XXXXXXXX</b>	YARD ARRIVE	LUNCH	TOTAL HOURS

WORK PERFORMED MANIFEST #:	off load on site OF GALLONS: <b>9</b>	# OF WELLS: <b>3</b>	# OF DRUMS: <b>9</b>	# OF TANKS: <b>9</b>
AIR ASSIST LINE INSTALLED TODAY:	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	AIR ASSIST USED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SOLIDS/SILT <b>0 %</b>	
SPECIAL EQUIPMENT USED (HOSES, FITTINGS, STINGERS): <b>WATER SAMPLE</b>				

STINGERS USED	<b>KONG</b>
---------------	-------------

DRIVER SIGNATURE <b>Richard Duran</b>	TRUCK NUMBER <b>238</b>	CUSTOMER SIGNATURE <b>X Megan Elmer</b>	DATE <b>10 / 7 / 05</b>
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\*\*\* 24 HOUR SERVICE \*\*\*

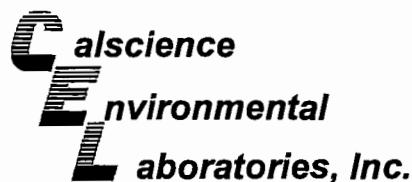
CUSTOMER COPY

## ***Appendix B***

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### **Laboratory Analytical Data**





October 14, 2005

Jennifer Wiley  
Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Subject: Calscience Work Order No.: 05-10-0274  
Client Reference: CENCO

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/5/2005 and analyzed in accordance with the attached chain-of-custody.

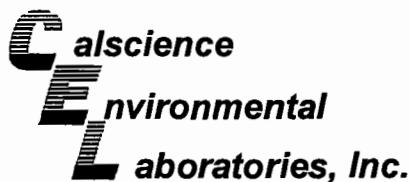
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that appears to read "Stephen Nowak".

Calscience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

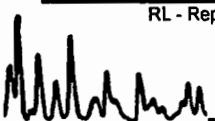
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: N/A  
Method: RSK-175M

Project: CENCO

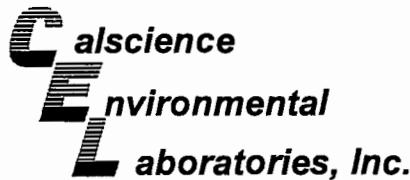
Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-503B-1005	05-10-0274-2	10/05/05	Aqueous	N/A	10/08/05	051008L01
Parameter	Result	RL	DF	Qual	Units	
Methane	1380	40	40		ug/L	
MW-605-1005	05-10-0274-5	10/05/05	Aqueous	N/A	10/07/05	051007L01
Parameter	Result	RL	DF	Qual	Units	
Methane	1.25	1.00	1		ug/L	
MW-605-1005-D	05-10-0274-6	10/05/05	Aqueous	N/A	10/07/05	051007L01
Parameter	Result	RL	DF	Qual	Units	
Methane	ND	1.00	1		ug/L	
MW-606-1005	05-10-0274-7	10/05/05	Aqueous	N/A	10/07/05	051007L01
Parameter	Result	RL	DF	Qual	Units	
Methane	178	1	1		ug/L	
Method Blank	099-12-010-1,121	N/A	Aqueous	N/A	10/07/05	051007L01
Parameter	Result	RL	DF	Qual	Units	
Methane	ND	1.00	1		ug/L	
Method Blank	099-12-010-1,123	N/A	Aqueous	N/A	10/08/05	051008L01
Parameter	Result	RL	DF	Qual	Units	
Methane	ND	1.00	1		ug/L	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
TB100505	05-10-0274-1	10/05/05	Aqueous	10/08/05	10/08/05	051008B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	61	49-133			

MW-503B-1005	05-10-0274-2	10/05/05	Aqueous	10/08/05	10/08/05	051008B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	5400	1000	10		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	88	49-133			

MW-502-1005	05-10-0274-3	10/05/05	Aqueous	10/08/05	10/09/05	051008B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	15000	1000	10		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	97	49-133			

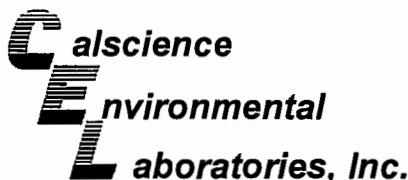
MW-607-1005	05-10-0274-4	10/05/05	Aqueous	10/08/05	10/09/05	051008B01
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Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard.  
Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	760	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	88	49-133			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-605-1005	05-10-0274-5	10/05/05	Aqueous	10/08/05	10/09/05	051008B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	65	49-133			

MW-605-1005-D	05-10-0274-6	10/05/05	Aqueous	10/08/05	10/09/05	051008B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	62	49-133			

MW-606-1005	05-10-0274-7	10/05/05	Aqueous	10/08/05	10/09/05	051008B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	240	100	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	85	49-133			

Method Blank	098-03-006-7,636	N/A	Aqueous	10/08/05	10/08/05	051008B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	59	49-133			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

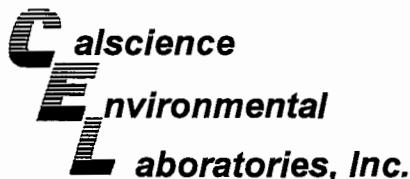
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 1 of 10

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID			
TB100505	05-10-0274-1	10/05/05	Aqueous	10/06/05	10/06/05	051006L01			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	109	74-140		1,2-Dichloroethane-d4	124	74-146			
Toluene-d8	95	88-112		1,4-Bromofluorobenzene	95	74-110			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

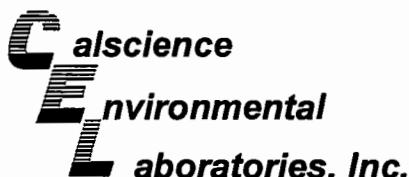
Project: CENCO

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID			
MW-503B-1005	05-10-0274-2	10/05/05	Aqueous	10/06/05	10/06/05	051006L01			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	200	20		c-1,3-Dichloropropene	ND	10	20	
Benzene	1100	10	20		t-1,3-Dichloropropene	ND	10	20	
Bromobenzene	ND	20	20		Ethylbenzene	73	20	20	
Bromochloromethane	ND	20	20		2-Hexanone	ND	200	20	
Bromodichloromethane	ND	20	20		Isopropylbenzene	61	20	20	
Bromoform	ND	20	20		p-Isopropyltoluene	ND	20	20	
Bromomethane	ND	200	20		Methylene Chloride	ND	200	20	
2-Butanone	ND	200	20		4-Methyl-2-Pentanone	ND	200	20	
n-Butylbenzene	ND	20	20		Naphthalene	ND	200	20	
sec-Butylbenzene	ND	20	20		n-Propylbenzene	90	20	20	
tert-Butylbenzene	ND	20	20		Styrene	ND	20	20	
Carbon Disulfide	ND	200	20		1,1,1,2-Tetrachloroethane	ND	20	20	
Carbon Tetrachloride	ND	10	20		1,1,2,2-Tetrachloroethane	ND	20	20	
Chlorobenzene	ND	20	20		Tetrachloroethene	ND	20	20	
Chloroethane	ND	20	20		Toluene	ND	20	20	
Chloroform	ND	20	20		1,2,3-Trichlorobenzene	ND	20	20	
Chloromethane	ND	200	20		1,2,4-Trichlorobenzene	ND	20	20	
2-Chlorotoluene	ND	20	20		1,1,1-Trichloroethane	ND	20	20	
4-Chlorotoluene	ND	20	20		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	200	20	
Dibromochloromethane	ND	20	20		1,1,2-Trichloroethane	ND	20	20	
1,2-Dibromo-3-Chloropropane	ND	100	20		Trichloroethene	ND	20	20	
1,2-Dibromoethane	ND	20	20		Trichlorofluoromethane	ND	200	20	
Dibromomethane	ND	20	20		1,2,3-Trichloropropane	ND	100	20	
1,2-Dichlorobenzene	ND	20	20		1,2,4-Trimethylbenzene	ND	20	20	
1,3-Dichlorobenzene	ND	20	20		1,3,5-Trimethylbenzene	ND	20	20	
1,4-Dichlorobenzene	ND	20	20		Vinyl Acetate	ND	200	20	
Dichlorodifluoromethane	ND	20	20		Vinyl Chloride	ND	10	20	
1,1-Dichloroethane	ND	20	20		p/m-Xylene	38	20	20	
1,2-Dichloroethane	ND	10	20		o-Xylene	ND	20	20	
1,1-Dichloroethene	ND	20	20		Methyl-t-Butyl Ether (MTBE)	ND	20	20	
c-1,2-Dichloroethene	ND	20	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
t-1,2-Dichloroethene	ND	20	20		Diisopropyl Ether (DIPE)	ND	40	20	
1,2-Dichloropropane	ND	20	20		Ethyl-t-Butyl Ether (ETBE)	ND	40	20	
1,3-Dichloropropane	ND	20	20		Tert-Amyl-Methyl Ether (TAME)	ND	40	20	
2,2-Dichloropropane	ND	20	20		Ethanol	ND	2000	20	
1,1-Dichloropropene	ND	20	20						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>		
Dibromofluoromethane	107	74-140		1,2-Dichloroethane-d4	117	74-146			
Toluene-d8	100	88-112		1,4-Bromofluorobenzene	98	74-110			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 3 of 10

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-502-1005	05-10-0274-3	10/05/05	Aqueous	10/06/05	10/06/05	051006L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	1000	100		c-1,3-Dichloropropene	ND	50	100	
Benzene	900	50	100		t-1,3-Dichloropropene	ND	50	100	
Bromobenzene	ND	100	100		Ethylbenzene	430	100	100	
Bromoform	ND	100	100		2-Hexanone	ND	1000	100	
Bromochloromethane	ND	100	100		Isopropylbenzene	ND	100	100	
Bromodichloromethane	ND	100	100		p-Isopropyltoluene	ND	100	100	
Bromomethane	ND	1000	100		Methylene Chloride	ND	1000	100	
2-Butanone	ND	1000	100		4-Methyl-2-Pentanone	ND	1000	100	
n-Butylbenzene	ND	100	100		Naphthalene	ND	1000	100	
sec-Butylbenzene	ND	100	100		n-Propylbenzene	110	100	100	
tert-Butylbenzene	ND	100	100		Styrene	ND	100	100	
Carbon Disulfide	ND	1000	100		1,1,1,2-Tetrachloroethane	ND	100	100	
Carbon Tetrachloride	ND	50	100		1,1,2,2-Tetrachloroethane	ND	100	100	
Chlorobenzene	ND	100	100		Tetrachloroethene	ND	100	100	
Chloroethane	ND	100	100		Toluene	ND	100	100	
Chloroform	ND	100	100		1,2,3-Trichlorobenzene	ND	100	100	
Chloromethane	ND	1000	100		1,2,4-Trichlorobenzene	ND	100	100	
2-Chlorotoluene	ND	100	100		1,1,1-Trichloroethane	ND	100	100	
4-Chlorotoluene	ND	100	100		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	100	
Dibromochloromethane	ND	100	100		1,1,2-Trichloroethane	ND	100	100	
1,2-Dibromo-3-Chloropropane	ND	500	100		Trichloroethene	ND	100	100	
1,2-Dibromoethane	ND	100	100		Trichlorofluoromethane	ND	1000	100	
Dibromomethane	ND	100	100		1,2,3-Trichloropropene	ND	500	100	
1,2-Dichlorobenzene	ND	100	100		1,2,4-Trimethylbenzene	ND	100	100	
1,3-Dichlorobenzene	ND	100	100		1,3,5-Trimethylbenzene	110	100	100	
1,4-Dichlorobenzene	ND	100	100		Vinyl Acetate	ND	1000	100	
Dichlorodifluoromethane	ND	100	100		Vinyl Chloride	ND	50	100	
1,1-Dichloroethane	ND	100	100		p/m-Xylene	110	100	100	
1,2-Dichloroethane	ND	50	100		o-Xylene	ND	100	100	
1,1-Dichloroethene	ND	100	100		Methyl-t-Butyl Ether (MTBE)	15000	100	100	
c-1,2-Dichloroethene	ND	100	100		Tert-Butyl Alcohol (TBA)	ND	1000	100	
t-1,2-Dichloroethene	ND	100	100		Diisopropyl Ether (DIPE)	ND	200	100	
1,2-Dichloropropane	ND	100	100		Ethyl-t-Butyl Ether (ETBE)	ND	200	100	
1,3-Dichloropropane	ND	100	100		Tert-Amyl-Methyl Ether (TAME)	ND	200	100	
2,2-Dichloropropane	ND	100	100		Ethanol	ND	10000	100	
1,1-Dichloropropene	ND	100	100						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	107	74-140			1,2-Dichloroethane-d4	114	74-146		
Toluene-d8	99	88-112			1,4-Bromofluorobenzene	96	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

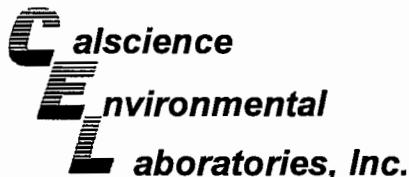
Project: CENCO

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-607-1005	05-10-0274-4	10/05/05	Aqueous	10/07/05	10/07/05	051007L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	16	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	1.2	0.5	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	9.1	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	2.7	1.0	1		n-Propylbenzene	12	1	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	1.2	0.5	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	1.7	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	74	10	1	
1,2-Dichloropropane	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,1-Dichloropropene	ND	1.0	1		Ethanol	ND	100	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	105	74-140			1,2-Dichloroethane-d4	114	74-146		
Toluene-d8	99	88-112			1,4-Bromofluorobenzene	101	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

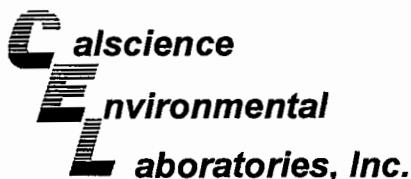
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 5 of 10

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID			
MW-605-1005	05-10-0274-5	10/05/05	Aqueous	10/06/05	10/07/05	051006L02			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromomethane	ND	10	1		Isopropylbenzene	ND	1.0	1	
2-Butanone	ND	10	1		p-Isopropyltoluene	ND	1.0	1	
n-Butylbenzene	ND	1.0	1		Methylene Chloride	ND	10	1	
sec-Butylbenzene	ND	1.0	1		4-Methyl-2-Pentanone	ND	10	1	
tert-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
Carbon Disulfide	ND	10	1		n-Propylbenzene	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Styrene	ND	1.0	1	
Chlorobenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Chloroethane	ND	1.0	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chloroform	ND	1.0	1		Tetrachloroethene	4.3	1.0	1	
Chloromethane	ND	10	1		Toluene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromomethane	ND	1.0	1		Trichloroethene	20	1	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
1,3-Dichlorobenzene	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1		p/m-Xylene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		o-Xylene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,3-Dichloropropane	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,1-Dichloropropene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
<u>Surrogates:</u>		<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
Dibromofluoromethane	95	74-140			1,2-Dichloroethane-d4	114	74-146		
Toluene-d8	100	88-112			1,4-Bromofluorobenzene	96	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
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Irvine, CA 92612-6520

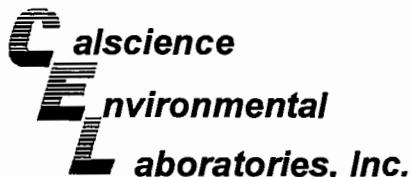
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

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Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
MW-605-1005-D	05-10-0274-6			10/05/05	Aqueous	10/06/05	10/07/05	051006L02	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	4.5	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	20	1	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropene	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	102	74-140			1,2-Dichloroethane-d4	122	74-146		
Toluene-d8	97	88-112			1,4-Bromofluorobenzene	95	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

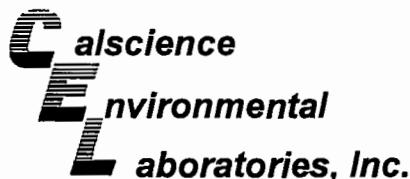
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

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Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
MW-606-1005		05-10-0274-7	10/05/05	Aqueous	10/07/05	10/07/05	051007L01		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	15	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	5.6	0.5	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	2.1	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	3.2	0.5	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	4.8	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	42	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	104	74-140			1,2-Dichloroethane-d4	113	74-146		
Toluene-d8	99	88-112			1,4-Bromofluorobenzene	97	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



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Irvine, CA 92612-6520

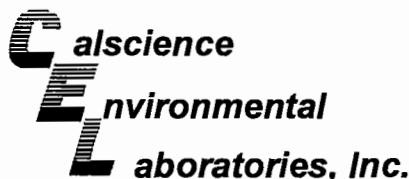
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 8 of 10

Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
Method Blank		099-10-006-15,885	N/A	Aqueous	10/06/05	10/06/05	051006L01		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	103	74-140			1,2-Dichloroethane-d4	106	74-146		
Toluene-d8	98	88-112			1,4-Bromofluorobenzene	95	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

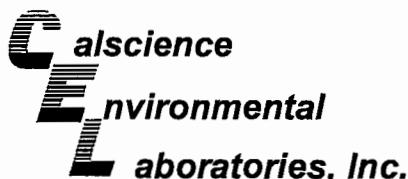
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

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Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
Method Blank		099-10-006-15,892	N/A	Aqueous	10/06/05	10/07/05	051006L02		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	116	74-140			1,2-Dichloroethane-d4	124	74-146		
Toluene-d8	101	88-112			1,4-Bromofluorobenzene	93	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
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Irvine, CA 92612-6520

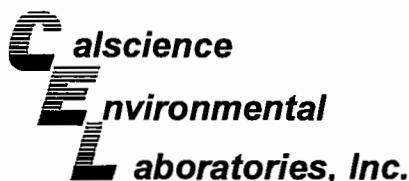
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 10 of 10

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID			
<b>Method Blank</b>	<b>099-10-006-15,900</b>	<b>N/A</b>	<b>Aqueous</b>	<b>10/07/05</b>	<b>10/07/05</b>	<b>051007L01</b>			
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	106	74-140			1,2-Dichloroethane-d4	114	74-146		
Toluene-d8	98	88-112			1,4-Bromofluorobenzene	97	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274

Project: CENCO

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-503B-1005	05-10-0274-2	10/05/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	24	2	1		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/05/05	EPA 7199
Alkalinity, Total (as CaCO <sub>3</sub> )	730	5.0	1		mg/L	N/A	10/11/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	10/05/05	SM3500-FeD

MW-502-1005	05-10-0274-3	10/05/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

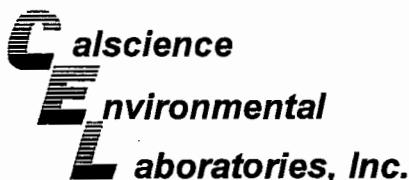
MW-607-1005	05-10-0274-4	10/05/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

MW-605-1005	05-10-0274-5	10/05/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	8.3	2.5	25		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	180	20	10		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199
Alkalinity, Total (as CaCO <sub>3</sub> )	500	5.0	1		mg/L	N/A	10/11/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	10/05/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



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Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274

Project: CENCO

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-605-1005-D	05-10-0274-6	10/05/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	8.3	2.5	25		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	170	10	5		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199
Alkalinity, Total (as CaCO <sub>3</sub> )	500	5.0	1		mg/L	N/A	10/11/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	10/05/05	SM3500-FeD

MW-606-1005	05-10-0274-7	10/05/05	Aqueous
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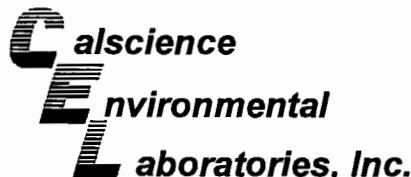
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	3.0	0.5	5		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	170	20	10		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	2.0	1.0	1		ug/L	N/A	10/06/05	EPA 7199
Alkalinity, Total (as CaCO <sub>3</sub> )	540	5.0	1		mg/L	N/A	10/11/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	10/05/05	SM3500-FeD

Method Blank	N/A	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	ND	2.0	1		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/05/05	EPA 7199
Iron (II)	ND	0.10	1		mg/L	N/A	10/05/05	SM3500-FeD

RL - Reporting Limit . DF - Dilution Factor . Qual - Qualifiers

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## Quality Control - Spike/Spike Duplicate



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2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: DHS LUFT

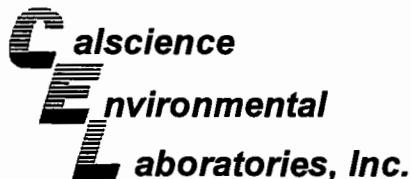
## Project CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0241-1	Aqueous	GC 4	10/08/05	10/08/05	051008S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	105	105	70-112	0	0-17	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - Spike/Spike Duplicate



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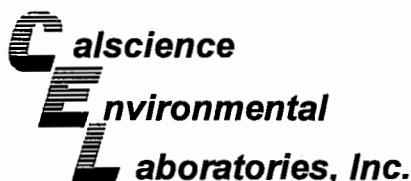
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B

## Project CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0251-1	Aqueous	GC/MS T	10/06/05	10/06/05	051006S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	103	88-118	1	0-7	
Carbon Tetrachloride	94	96	67-145	2	0-11	
Chlorobenzene	102	103	88-118	0	0-7	
1,2-Dichlorobenzene	102	102	86-116	1	0-8	
1,1-Dichloroethene	94	102	70-130	9	0-25	
Toluene	104	104	87-123	0	0-8	
Trichloroethene	101	106	79-127	4	0-10	
Vinyl Chloride	94	100	69-129	5	0-13	
Methyl-t-Butyl Ether (MTBE)	108	105	71-131	3	0-13	
Tert-Butyl Alcohol (TBA)	159	112	36-168	34	0-45	
Diisopropyl Ether (DIPE)	102	102	81-123	0	0-9	
Ethyl-t-Butyl Ether (ETBE)	106	107	72-126	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	111	112	72-126	1	0-12	
Ethanol	128	113	53-149	13	0-31	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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2600 Michelson Drive, Suite 830  
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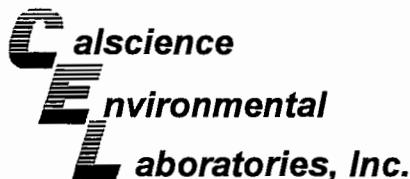
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B

### Project CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0327-4	Aqueous	GC/MS T	10/06/05	10/07/05	051006S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	103	88-118	1	0-7	
Carbon Tetrachloride	109	105	67-145	3	0-11	
Chlorobenzene	103	103	88-118	0	0-7	
1,2-Dichlorobenzene	104	102	86-116	3	0-8	
1,1-Dichloroethene	106	101	70-130	5	0-25	
Toluene	107	107	87-123	0	0-8	
Trichloroethene	105	118	79-127	12	0-10	4
Vinyl Chloride	93	98	69-129	6	0-13	
Methyl-t-Butyl Ether (MTBE)	100	99	71-131	1	0-13	
Tert-Butyl Alcohol (TBA)	102	105	36-168	3	0-45	
Diisopropyl Ether (DIPE)	102	102	81-123	0	0-9	
Ethyl-t-Butyl Ether (ETBE)	105	105	72-126	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	108	109	72-126	0	0-12	
Ethanol	89	95	53-149	7	0-31	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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Irvine, CA 92612-6520

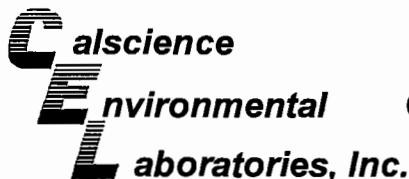
Date Received: 10/05/05  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B

## Project CENCO

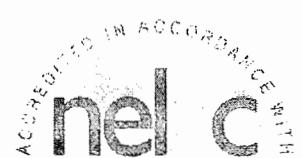
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0406-1	Aqueous	GC/MS T	10/07/05	10/07/05	051007S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	103	88-118	4	0-7	
Carbon Tetrachloride	101	104	67-145	3	0-11	
Chlorobenzene	101	104	88-118	3	0-7	
1,2-Dichlorobenzene	103	104	86-116	0	0-8	
1,1-Dichloroethene	96	98	70-130	3	0-25	
Toluene	103	105	87-123	3	0-8	
Trichloroethene	100	108	79-127	8	0-10	
Vinyl Chloride	91	97	69-129	6	0-13	
Methyl-t-Butyl Ether (MTBE)	103	106	71-131	3	0-13	
Tert-Butyl Alcohol (TBA)	109	118	36-168	8	0-45	
Diisopropyl Ether (DIPE)	101	104	81-123	4	0-9	
Ethyl-t-Butyl Ether (ETBE)	104	108	72-126	4	0-12	
Tert-Amyl-Methyl Ether (TAME)	111	115	72-126	3	0-12	
Ethanol	101	112	53-149	10	0-31	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0274

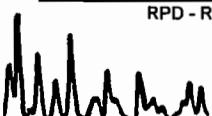
Project: CENCO

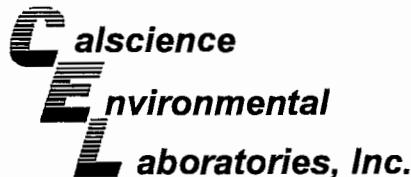
Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Sulfate	EPA 375.4	MW-605-1005	10/13/05	N/A	102	108	70-130	4	0-25	
Chromium, Hexavalent	EPA 7199	MW-503B-1005	10/05/05	N/A	92	97	70-130	5	0-25	
Nitrate (as N)	EPA 353.3/354.1	MW-503B-1005	10/06/05	N/A	110	111	70-130	1	0-25	
Iron (II)	SM3500-FeD	05-10-0273-13	10/05/05	N/A	105	102	70-130	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - Duplicate



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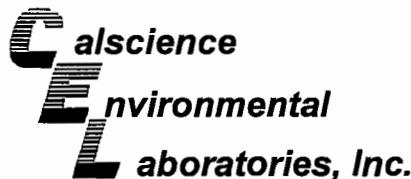
Date Received: N/A  
Work Order No: 05-10-0274

Project: CENCO

<b>Matrix: Aqueous</b>
------------------------

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO <sub>3</sub> )	SM 2320B	05-10-0530-1	10/11/05	510	510	1	0-25	
Bicarbonate (as CaCO <sub>3</sub> )	SM 2320B	05-10-0530-1	10/11/05	510	510	0	0-25	
Carbonate (as CaCO <sub>3</sub> )	SM 2320B	05-10-0530-1	10/11/05	ND	ND	NA	0-25	
Hydroxide (as CaCO <sub>3</sub> )	SM 2320B	05-10-0530-1	10/11/05	ND	ND	NA	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0274  
Preparation: N/A  
Method: RSK-175M

Project: CENCO

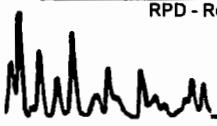
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-010-1,121	Aqueous	GC 33	N/A	10/07/05	051007L01

Parameter	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Methane	101	104	79-109	3	0-20	

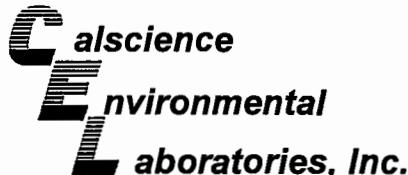
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RPD - Relative Percent Difference . CL - Control Limit




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7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



### Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

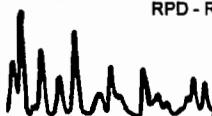
Date Received: N/A  
Work Order No: 05-10-0274  
Preparation: N/A  
Method: RSK-175M

Project: CENCO

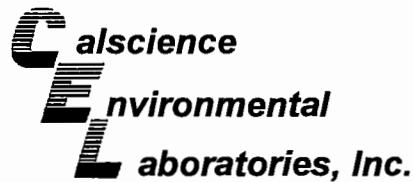
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-010-1,123	Aqueous	GC 33	N/A	10/08/05	051008L01

Parameter	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Methane	105	104	79-109	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

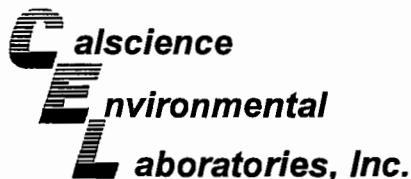
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-006-7,636	Aqueous	GC 4	10/08/05	10/08/05	051008B01

Parameter	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	107	106	72-114	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



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## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B

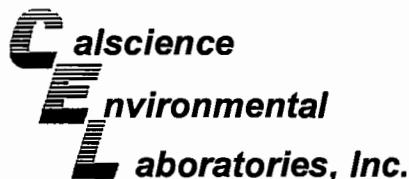
Project: CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-15,885	Aqueous	GC/MS T	10/06/05	10/06/05	051006L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	101	84-120	2	0-8	
Carbon Tetrachloride	99	97	63-147	2	0-10	
Chlorobenzene	104	100	89-119	3	0-7	
1,2-Dichlorobenzene	103	104	89-119	0	0-9	
1,1-Dichloroethene	96	95	77-125	2	0-16	
Toluene	107	104	83-125	2	0-9	
Trichloroethene	102	98	89-119	4	0-8	
Vinyl Chloride	101	100	63-135	2	0-13	
Methyl-t-Butyl Ether (MTBE)	106	104	82-118	2	0-13	
Tert-Butyl Alcohol (TBA)	117	116	46-154	1	0-32	
Diisopropyl Ether (DIPE)	104	104	81-123	0	0-11	
Ethyl-t-Butyl Ether (ETBE)	107	107	74-122	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	116	113	76-124	2	0-10	
Ethanol	109	108	60-138	1	0-32	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: CENCO

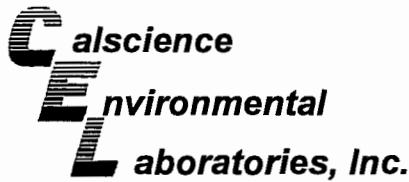
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-15,892	Aqueous	GC/MS T	10/06/05	10/07/05	051006L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	104	101	84-120	3	0-8	
Carbon Tetrachloride	105	99	63-147	5	0-10	
Chlorobenzene	104	103	89-119	1	0-7	
1,2-Dichlorobenzene	106	104	89-119	2	0-9	
1,1-Dichloroethene	103	100	77-125	3	0-16	
Toluene	108	106	83-125	1	0-9	
Trichloroethene	102	100	89-119	1	0-8	
Vinyl Chloride	100	97	63-135	2	0-13	
Methyl-t-Butyl Ether (MTBE)	101	99	82-118	2	0-13	
Tert-Butyl Alcohol (TBA)	85	84	46-154	1	0-32	
Diisopropyl Ether (DIPE)	104	104	81-123	0	0-11	
Ethyl-t-Butyl Ether (ETBE)	108	106	74-122	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	110	109	76-124	1	0-10	
Ethanol	92	92	60-138	0	0-32	

RPD - Relative Percent Difference , CL - Control Limit



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## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

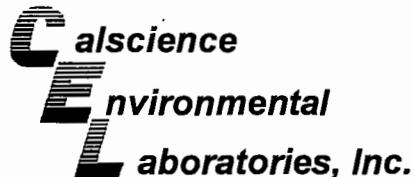
Date Received: N/A  
Work Order No: 05-10-0274  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-15,900	Aqueous	GC/MS T	10/07/05	10/07/05	051007L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	102	84-120	1	0-8	
Carbon Tetrachloride	107	106	63-147	2	0-10	
Chlorobenzene	103	104	89-119	0	0-7	
1,2-Dichlorobenzene	106	104	89-119	2	0-9	
1,1-Dichloroethene	100	106	77-125	6	0-16	
Toluene	107	107	83-125	1	0-9	
Trichloroethene	102	102	89-119	0	0-8	
Vinyl Chloride	99	100	63-135	1	0-13	
Methyl-t-Butyl Ether (MTBE)	108	107	82-118	1	0-13	
Tert-Butyl Alcohol (TBA)	110	110	46-154	0	0-32	
Diisopropyl Ether (DIPE)	105	105	81-123	0	0-11	
Ethyl-t-Butyl Ether (ETBE)	112	111	74-122	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	119	115	76-124	3	0-10	
Ethanol	95	98	60-138	3	0-32	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0274

Project: CENCO

**Matrix: Aqueous**

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>LCS % REC</u>	<u>LCSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-1,567	N/A	10/05/05	95	93	80-120	2	0-20	

RPD - Relative Percent Difference . CL - Control Limit

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**Calscience****E nvironmental  
Laboratories, Inc.****Quality Control - Laboratory Control Sample**

Blasland, Bouck & Lee, Inc.  
 2600 Michelson Drive, Suite 830  
 Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0274

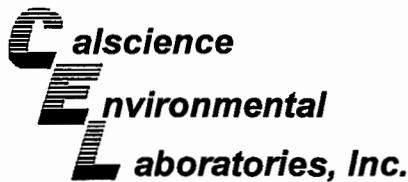
Project: CENCO

**Matrix : Aqueous**

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Sulfate	EPA 375.4	099-05-091-1,277	10/13/05	N/A	20	20	100	80-120	
Nitrate (as N)	EPA 353.3/354.1	099-04-011-342	10/06/05	N/A	0.50	0.49	97	80-120	
Iron (II)	SM3500-FeD	099-05-111-2,075	10/05/05	N/A	1.0	1.0	104	80-120	

RPD - Relative Percent Difference , CL - Control Limit

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## Glossary of Terms and Qualifiers



Work Order Number: 05-10-0274

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

CALSCIENCE ENVIRONMENTAL

## **LABORATORIES, INC.**

7440 LINCOLN WAY

GARDEN GROVE, CA 92841-1427

**TEL: (714) 895-5494 • FAX: (714) 894-7501**

## **CHAIN OF CUSTODY RECORD**

Date \_\_\_\_\_

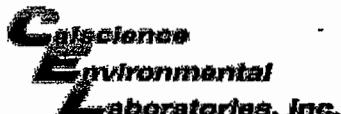
Page \_\_\_\_\_ of \_\_\_\_\_

<p>LABORATORY CLIENT: <b>BLASLAND, BOUCK &amp; LEE, INC.</b></p> <p>ADDRESS: 2600 MICHELSON DRIVE, STE. 830</p> <p>CITY <b>IRVINE</b> STATE <b>CA</b> ZIP <b>92612</b></p> <p>TEL: <b>949-474-9052</b> FAX: <b>949-474-9345</b> E-MAIL:</p>						<p>CLIENT PROJECT NAME / NUMBER: <b>CENCO</b></p> <p>PROJECT CONTACT: <b>JENNIFER WILEY</b></p> <p>SAMPLER(S): (SIGNATURE) <i>MynieShay</i></p>				<p>P.O. NO.: <b>54202-001</b></p> <p>LAB USE ONLY <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>																																																																																																																																																																																																																																																						
										<p>COELT LOG CODE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>COOLER RECEIPT TEMP = <b>98</b></p>																																																																																																																																																																																																																																																						
						<p><b>REQUESTED ANALYSES</b></p> <table border="1"> <thead> <tr> <th>LAB USE ONLY</th> <th>SAMPLE ID</th> <th>FIELD POINT NAME (FOR COELT EDF)</th> <th colspan="2">SAMPLING</th> <th>MATRIX</th> <th>NO. OF CONT.</th> <th>TPH (G)</th> <th>TPH (D) or BTEX / MTBE (8260B) or OXYGENATES (8260B)</th> <th>SVOCs (8270C)</th> <th>5035 ENCORE PREP VOCs (8260B) +</th> <th>PEST (8081A)</th> <th>PCBs (8082)</th> <th>GAC, T22 METALS (8010B) / 747 PNAS (8310) or (8270C)</th> <th>VOCs (TO-14A) or (TO-15)</th> <th>TPH (G) (TO-3M)</th> <th>Cr<sub>6</sub> (7199)</th> <th>Ferrous Iron (3500)</th> <th>NITRATE (352.1)</th> <th>SULFATE (375.1)</th> <th>ALKALINITY (310.1)</th> <th>METHANE (854-175M)</th> </tr> </thead> <tbody> <tr> <td></td> <td>TB100505</td> <td></td> <td>10/05/05</td> <td>0700</td> <td>W</td> <td>2</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>MW-503B-1005</td> <td></td> <td>10/05/05</td> <td>1000</td> <td>GW</td> <td>10</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>MW-502-1005</td> <td></td> <td>10/05/05</td> <td>1100</td> <td>GW</td> <td>7</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>MW-607-1005</td> <td></td> <td>10/05/05</td> <td>1325</td> <td>GW</td> <td>7</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>MW-1005-1005</td> <td></td> <td>10/05/05</td> <td>1515</td> <td>GW</td> <td>10</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>MW-605-1005-D</td> <td></td> <td>10/05/05</td> <td>1515</td> <td>GW</td> <td>10</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>MW-606-1005</td> <td></td> <td>10/05/05</td> <td>1625</td> <td>GW</td> <td>10</td> <td>X</td> <td>XX</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> </tr> <tr> <td></td> </tr> <tr> <td colspan="6"> <p>Relinquished by: (Signature) <i>MynieShay</i> 10-05-05 1715</p> </td> <td colspan="4"> <p>Received by: (Signature) <i>Dave</i> 252</p> </td> <td colspan="2"> <p>Date: <b>10/15/15</b> Time: <b>17:15</b></p> </td> </tr> <tr> <td colspan="6"> <p>Relinquished by: (Signature)</p> </td> <td colspan="4"> <p>Received by: (Signature)</p> </td> <td colspan="2"> <p>Date: _____ Time: _____</p> </td> </tr> <tr> <td colspan="6"> <p>Relinquished by: (Signature)</p> </td> <td colspan="4"> <p>Received for Laboratory by: (Signature) <i>Dave</i> 10/15/15</p> </td> <td colspan="2"> <p>Date: <b>10/15/15</b> Time: <b>1800</b></p> </td> </tr> </tbody> </table>				LAB USE ONLY	SAMPLE ID	FIELD POINT NAME (FOR COELT EDF)	SAMPLING		MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or BTEX / MTBE (8260B) or OXYGENATES (8260B)	SVOCs (8270C)	5035 ENCORE PREP VOCs (8260B) +	PEST (8081A)	PCBs (8082)	GAC, T22 METALS (8010B) / 747 PNAS (8310) or (8270C)	VOCs (TO-14A) or (TO-15)	TPH (G) (TO-3M)	Cr <sub>6</sub> (7199)	Ferrous Iron (3500)	NITRATE (352.1)	SULFATE (375.1)	ALKALINITY (310.1)	METHANE (854-175M)		TB100505		10/05/05	0700	W	2	X	XX								X	X	X	X	X		MW-503B-1005		10/05/05	1000	GW	10	X	XX								X	X	X	X	X		MW-502-1005		10/05/05	1100	GW	7	X	XX								X						MW-607-1005		10/05/05	1325	GW	7	X	XX								X						MW-1005-1005		10/05/05	1515	GW	10	X	XX								X	X	X	X	X		MW-605-1005-D		10/05/05	1515	GW	10	X	XX								X	X	X	X	X		MW-606-1005		10/05/05	1625	GW	10	X	XX								X	X	X	X	X																																											<p>Relinquished by: (Signature) <i>MynieShay</i> 10-05-05 1715</p>						<p>Received by: (Signature) <i>Dave</i> 252</p>				<p>Date: <b>10/15/15</b> Time: <b>17:15</b></p>		<p>Relinquished by: (Signature)</p>						<p>Received by: (Signature)</p>				<p>Date: _____ Time: _____</p>		<p>Relinquished by: (Signature)</p>						<p>Received for Laboratory by: (Signature) <i>Dave</i> 10/15/15</p>				<p>Date: <b>10/15/15</b> Time: <b>1800</b></p>	
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<p>Relinquished by: (Signature)</p>						<p>Received by: (Signature)</p>				<p>Date: _____ Time: _____</p>																																																																																																																																																																																																																																																						
<p>Relinquished by: (Signature)</p>						<p>Received for Laboratory by: (Signature) <i>Dave</i> 10/15/15</p>				<p>Date: <b>10/15/15</b> Time: <b>1800</b></p>																																																																																																																																																																																																																																																						

~~DISTRIBUTION:~~ When with final report. Green to file. Yellow to Client.

Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

10/20/04 Revision



WORK ORDER #: 05 - 1 0 - 0 2 7 4

Cooler 1 of 1

**SAMPLE RECEIPT FORM**

CLIENT: BBL

DATE: 10/05/05

**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**

- Chilled, cooler with temperature blank provided.  
 Chilled, cooler without temperature blank.  
 Chilled and placed in cooler with wet ice.  
 Ambient and placed in cooler with wet ice.  
 Ambient temperature.

40 °C Temperature blank.

**LABORATORY (Other than Calscience Courier):**

- °C Temperature blank.  
 °C IR thermometer.  
 Ambient temperature.

Initial: Tn

**CUSTODY SEAL INTACT:**

Sample(s): \_\_\_\_\_ Cooler: \_\_\_\_\_ No (Not Intact) : \_\_\_\_\_ Not Applicable (N/A):   
 Initial:  Tn

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	.....	.....
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	.....	.....
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	.....	.....
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	.....	.....
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	.....	.....
VOA vial(s) free of headspace.....	<input checked="" type="checkbox"/>	.....	.....
Tedlar bag(s) free of condensation.....	.....	.....	<input checked="" type="checkbox"/>

Initial: Tn

**COMMENTS:**


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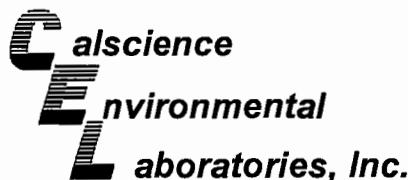
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October 14, 2005

Jennifer Wiley  
Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Subject: Calscience Work Order No.: 05-10-0379  
Client Reference: CENCO

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/6/2005 and analyzed in accordance with the attached chain-of-custody.

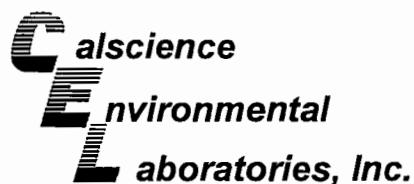
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that appears to read "Stephen Nowak".

Calscience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: N/A  
Method: RSK-175M

Project: CENCO

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-205-1005	05-10-0379-7	10/06/05	Aqueous	N/A	10/08/05	051008L01

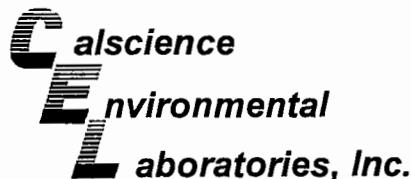
Parameter	Result	RL	DF	Qual	Units
Methane	3330	80	80		ug/L

Method Blank	099-12-010-1,123	N/A	Aqueous	N/A	10/08/05	051008L01
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Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-603-1005	05-10-0379-2	10/06/05	Aqueous	10/11/05	10/12/05	051011B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	150	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	121	49-133			

W-4-1005	05-10-0379-3	10/06/05	Aqueous	10/11/05	10/12/05	051011B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	350	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	136	49-133		2	

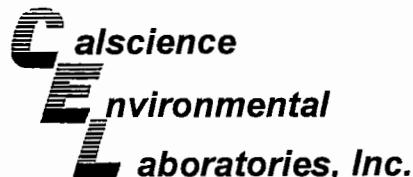
W-1-1005	05-10-0379-4	10/06/05	Aqueous	10/11/05	10/12/05	051011B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	310	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	132	49-133			

MW-105-1005	05-10-0379-5	10/06/05	Aqueous	10/11/05	10/12/05	051011B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	300	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	123	49-133			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-105-1005-D	05-10-0379-6	10/06/05	Aqueous	10/11/05	10/12/05	051011B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	320	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	123	49-133			

MW-205-1005	05-10-0379-7	10/06/05	Aqueous	10/11/05	10/12/05	051011B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	850	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	125	49-133			

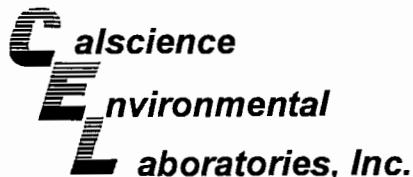
W-8-1005	05-10-0379-8	10/06/05	Aqueous	10/11/05	10/12/05	051011B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	220	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	122	49-133			

Method Blank	098-03-006-7,650	N/A	Aqueous	10/11/05	10/11/05	051011B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	118	49-133			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

ANALYTICAL  
ACCURACY & PERFORMANCE  
SINCE 1979

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

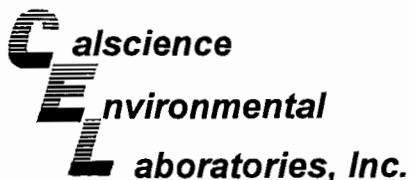
Project: CENCO

Page 1 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
TB100605	05-10-0379-1			09/29/05	Aqueous	10/10/05	10/10/05	051010L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Tetrachloroethene	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Toluene	ND	1.0	1	
Chloroethane	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,1,1-Trichloroethane	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichlorofluoromethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
Dibromomethane	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		o-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
c-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
t-1,2-Dichloroethene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
2,2-Dichloropropane	ND	1.0	1						
1,1-Dichloropropene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	97	74-140			1,2-Dichloroethane-d4	89	74-146		
Toluene-d8	101	88-112			1,4-Bromofluorobenzene	92	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

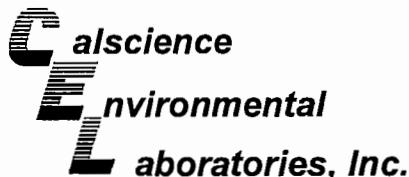
Project: CENCO

Page 2 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
<b>MW-603-1005</b>		05-10-0379-2		10/06/05	Aqueous	10/10/05	10/10/05	051010L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	0.82	0.5	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Tetrachloroethene	160	1	1	
Chlorobenzene	ND	1.0	1		Toluene	ND	1.0	1	
Chloroethane	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,1,1-Trichloroethane	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		Trichloroethene	150	1	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichlorofluoromethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
Dibromomethane	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Chloride	1.6	0.5	1	
Dichlorodifluoromethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,1-Dichloroethane	8.0	1.0	1		o-Xylene	ND	1.0	1	
1,2-Dichloroethane	12	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,1-Dichloroethene	100	1	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
c-1,2-Dichloroethene	22	1	1		Dilisopropyl Ether (Dipe)	ND	2.0	1	
t-1,2-Dichloroethene	7.3	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
2,2-Dichloropropane	ND	1.0	1						
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	91	74-146		
Toluene-d8	103	88-112			1,4-Bromofluorobenzene	93	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

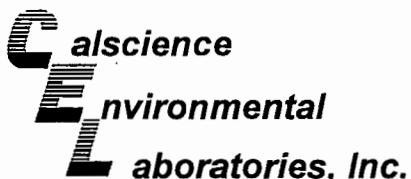
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 3 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
W-4-1005	05-10-0379-3			10/06/05	Aqueous	10/10/05	10/10/05	051010L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	31	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	5.9	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	4.2	1.0	1	
sec-Butylbenzene	1.1	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Tetrachloroethene	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Toluene	ND	1.0	1	
Chloroethane	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,1,1-Trichloroethane	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichlorofluoromethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,2,3-Trichloropropene	ND	5.0	1	
Dibromomethane	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Chloride	1.3	0.5	1	
Dichlorodifluoromethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,1-Dichloroethane	1.7	1.0	1		o-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	47	10	1	
c-1,2-Dichloroethene	6.4	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
t-1,2-Dichloroethene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
2,2-Dichloropropane	ND	1.0	1						
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	97	74-140			1,2-Dichloroethane-d4	90	74-146		
Toluene-d8	101	88-112			1,4-Bromofluorobenzene	92	74-110		

RL - Reporting Limit   DF - Dilution Factor   Qual - Qualifiers



## Analytical Report

Analyses performed in accordance with APHA-AWWA-CWEA Standard Methods

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

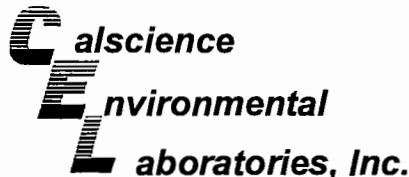
Project: CENCO

Page 4 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
W-1-1005	05-10-0379-4			10/06/05	Aqueous	10/10/05	10/10/05	051010L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	20	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	43	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	4.4	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	1.2	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	1.1	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	7.1	0.5	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	25	1	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	34	10	1	
t-1,2-Dichloroethene	1.6	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	99	74-140			1,2-Dichloroethane-d4	90	74-146		
Toluene-d8	100	88-112			1,4-Bromofluorobenzene	94	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

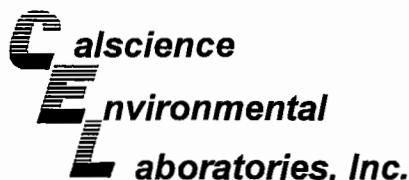
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 5 of 9

Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
MW-105-1005		05-10-0379-5	10/06/05	Aqueous	10/10/05	10/10/05	051010L01		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Tetrachloroethene	6.5	1.0	1	
Chlorobenzene	ND	1.0	1		Toluene	ND	1.0	1	
Chloroethane	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,1,1-Trichloroethane	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		Trichloroethene	41	1	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichlorofluoromethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,2,3-Trichloropropene	ND	5.0	1	
Dibromomethane	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,3-Dichlorobenzene	ND	1.0	1		Vinyl Chloride	1.4	0.5	1	
1,4-Dichlorobenzene	ND	1.0	1		p/m-Xylene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethane	5.8	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloroethane	0.58	0.5	1		Tert-Butyl Alcohol (TBA)	25	10	1	
1,1-Dichloroethene	10	1	1		Diisopropyl Ether (DIPE)	2.1	2.0	1	
c-1,2-Dichloroethene	10	1	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
t-1,2-Dichloroethene	3.7	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,3-Dichloropropane	ND	1.0	1						
2,2-Dichloropropane	ND	1.0	1						
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	99	74-140			1,2-Dichloroethane-d4	90	74-146		
Toluene-d8	102	88-112			1,4-Bromofluorobenzene	94	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

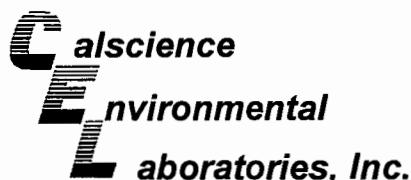
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 6 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
MW-105-1005-D	05-10-0379-6			10/06/05	Aqueous	10/10/05	10/10/05	051010L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromomethane	ND	10	1		Isopropylbenzene	ND	1.0	1	
2-Butanone	ND	10	1		p-Isopropyltoluene	ND	1.0	1	
n-Butylbenzene	ND	1.0	1		Methylene Chloride	ND	10	1	
sec-Butylbenzene	ND	1.0	1		4-Methyl-2-Pentanone	ND	10	1	
tert-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
Carbon Disulfide	ND	10	1		n-Propylbenzene	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Styrene	ND	1.0	1	
Chlorobenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Chloroethane	ND	1.0	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chloroform	ND	1.0	1		Tetrachloroethene	4.5	1.0	1	
Chloromethane	ND	10	1		Toluene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromomethane	ND	1.0	1		Trichloroethene	34	1	1	
1,2-Dichlorobenzene	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
1,3-Dichlorobenzene	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,1-Dichloroethane	5.7	1.0	1		Vinyl Acetate	ND	10	1	
1,2-Dichloroethane	0.55	0.5	1		Vinyl Chloride	1.4	0.5	1	
1,1-Dichloroethene	9.6	1.0	1		p/m-Xylene	ND	1.0	1	
c-1,2-Dichloroethene	10	1	1		o-Xylene	ND	1.0	1	
t-1,2-Dichloroethene	3.9	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	31	10	1	
1,3-Dichloropropane	ND	1.0	1		Diisopropyl Ether (Dipe)	2.3	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,1-Dichloropropene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
<u>Surrogates:</u>		<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	<u>Surrogates:</u>		<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	89	74-146		
Toluene-d8	101	88-112			1,4-Bromofluorobenzene	92	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

Analyst: [Signature]  
Date: [Signature]

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

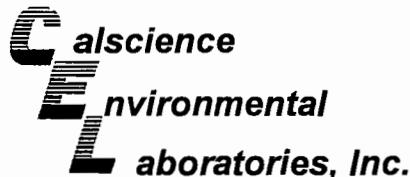
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 7 of 9

Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
MW-205-1005		05-10-0379-7	10/06/05	Aqueous	10/10/05	10/10/05	051010L01		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	17	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	55	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Tetrachloroethene	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Toluene	ND	1.0	1	
Chloroethane	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,1,1-Trichloroethane	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichlorofluoromethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
Dibromomethane	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		o-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
c-1,2-Dichloroethene	4.2	1.0	1		Dilisopropyl Ether (DIPE)	ND	2.0	1	
t-1,2-Dichloroethene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
2,2-Dichloropropane	ND	1.0	1						
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	89	74-146		
Toluene-d8	103	88-112			1,4-Bromofluorobenzene	91	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

Calscience  
Environmental  
Laboratories, Inc.

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

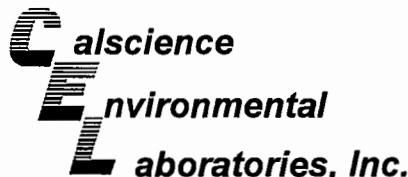
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 8 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
<b>W-8-1005</b>	<b>05-10-0379-8</b>			<b>10/06/05</b>	<b>Aqueous</b>	<b>10/10/05</b>	<b>10/10/05</b>	<b>051010L01</b>	
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	0.52	0.5	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		Tetrachloroethene	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Toluene	ND	1.0	1	
Chloroethane	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,4-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,1,1-Trichloroethane	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
Dibromochloromethane	ND	1.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichlorofluoromethane	ND	10	1	
1,2-Dibromoethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
Dibromomethane	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1		o-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
c-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
t-1,2-Dichloroethene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
2,2-Dichloropropane	ND	1.0	1						
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	88	74-146		
Toluene-d8	101	88-112			1,4-Bromofluorobenzene	91	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

ANALYSIS REPORT  
nel c

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2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

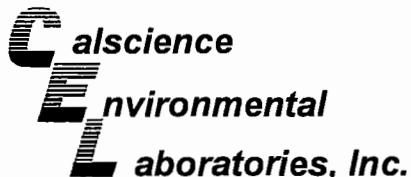
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 9 of 9

Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
Method Blank	099-10-006-15,919			N/A	Aqueous	10/10/05	10/10/05	051010L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromoform	ND	1.0	1		Methylene Chloride	ND	10	1	
Bromomethane	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
2-Butanone	ND	10	1		Naphthalene	ND	10	1	
n-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Tetrachloroethane	ND	1.0	1	
Carbon Disulfide	ND	10	1		Toluene	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chloroethane	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	88	74-146		
Toluene-d8	100	88-112			1,4-Bromofluorobenzene	92	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

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Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379

Project: CENCO

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-603-1005	05-10-0379-2	10/06/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

W-4-1005	05-10-0379-3	10/06/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

W-1-1005	05-10-0379-4	10/06/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

MW-105-1005	05-10-0379-5	10/06/05	Aqueous
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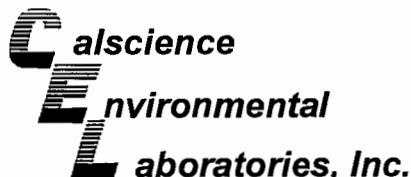
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

MW-105-1005-D	05-10-0379-6	10/06/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

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2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379

Project: CENCO

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-205-1005	05-10-0379-7	10/06/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	63	10	5		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199
Alkalinity, Total (as CaCO <sub>3</sub> )	3600	10	1		mg/L	N/A	10/13/05	SM 2320B
Iron (II)	0.44	0.1	1		mg/L	N/A	10/06/05	SM3500-FeD

W-8-1005	05-10-0379-8	10/06/05	Aqueous
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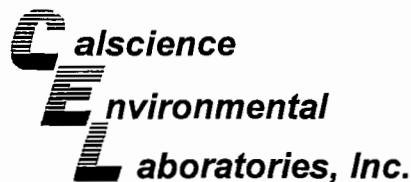
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199

Method Blank	N/A	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.050	1		mg/L	N/A	10/06/05	EPA 353.3/354.1
Sulfate	ND	0.10	1		mg/L	N/A	10/13/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/06/05	EPA 7199
Iron (II)	ND	0.10	1		mg/L	N/A	10/06/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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## Quality Control - Spike/Spike Duplicate

ANALYSIS  
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BY A2LA  
CENCO

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2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

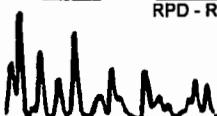
Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: DHS LUFT

Project CENCO

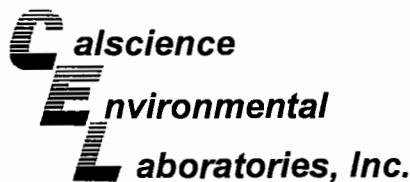
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0362-9	Aqueous	GC 18	10/11/05	10/11/05	051011S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	98	92	70-112	6	0-17	

RPD - Relative Percent Difference , CL - Control Limit



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## Quality Control - Spike/Spike Duplicate

ACQUISITION OF ANALYSIS

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Irvine, CA 92612-6520

Date Received: 10/06/05  
Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: EPA 8260B

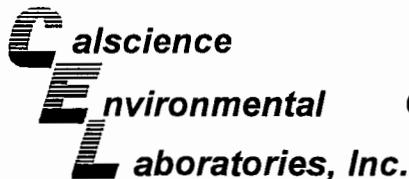
Project CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0425-4	Aqueous	GC/MS EE	10/10/05	10/10/05	051010S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	104	88-118	1	0-7	
Carbon Tetrachloride	79	88	67-145	11	0-11	
Chlorobenzene	103	104	88-118	1	0-7	
1,2-Dichlorobenzene	103	104	86-116	1	0-8	
1,1-Dichloroethene	93	96	70-130	2	0-25	
Toluene	103	104	87-123	1	0-8	
Trichloroethene	103	103	79-127	0	0-10	
Vinyl Chloride	87	88	69-129	1	0-13	
Methyl-t-Butyl Ether (MTBE)	87	87	71-131	0	0-13	
Tert-Butyl Alcohol (TBA)	81	86	36-168	6	0-45	
Diisopropyl Ether (DIPE)	100	100	81-123	0	0-9	
Ethyl-t-Butyl Ether (ETBE)	91	91	72-126	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	95	94	72-126	1	0-12	
Ethanol	103	94	53-149	10	0-31	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - Spike/Spike Duplicate



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Date Received:

N/A

Work Order No:

05-10-0379

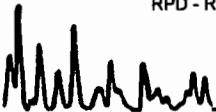
Project: CENCO

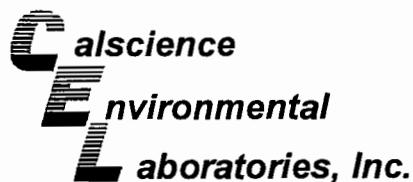
Matrix: Aqueous

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	MS% REC	MSD % REC	%REC CL	RPD CL	RPD CL	<u>Qualifiers</u>
Sulfate	EPA 375.4	05-10-0274-5	10/13/05	N/A	102	108	70-130	4	0-25	
Chromium, Hexavalent	EPA 7199	05-10-0305-3	10/06/05	N/A	110	109	70-130	1	0-25	
Nitrate (as N)	EPA 353.3/354.1	05-10-0274-2	10/06/05	N/A	110	111	70-130	1	0-25	
Iron (II)	SM3500-FeD	05-10-0376-7	10/06/05	N/A	108	106	70-130	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - Duplicate

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Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0379

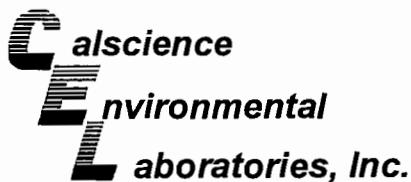
Project: CENCO

**Matrix: Aqueous**

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Alkalinity, Total (as CaCO <sub>3</sub> )	SM 2320B	05-10-0716-12	10/13/05	360	360	1	0-25	

RPD - Relative Percent Difference . CL - Control Limit

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## Quality Control - LCS/LCS Duplicate

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Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0379  
Preparation: N/A  
Method: RSK-175M

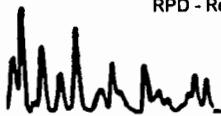
Project: CENCO

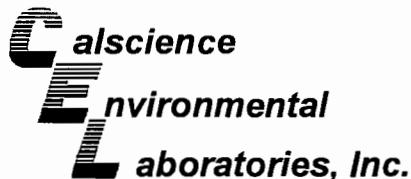
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-010-1,123	Aqueous	GC 33	N/A	10/08/05	051008L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	105	104	79-109	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - LCS/LCS Duplicate

ANALYST: *[Signature]*  
DATE: *[Date]*

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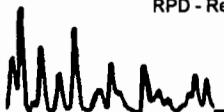
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Work Order No: 05-10-0379  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

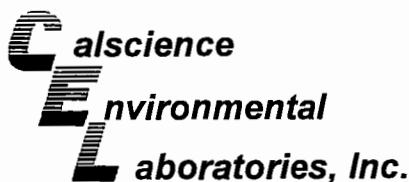
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-006-7,650	Aqueous	GC 18	10/11/05	10/11/05	051011B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	107	104	72-114	3	0-10	

RPD - Relative Percent Difference , CL - Control Limit



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## Quality Control - LCS/LCS Duplicate

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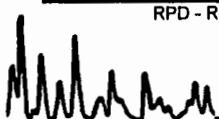
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Preparation: EPA 5030B  
Method: EPA 8260B

Project: CENCO

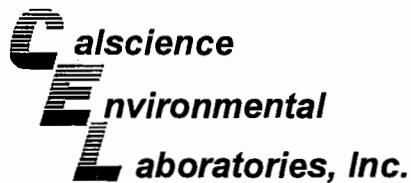
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-15,919	Aqueous	GC/MS EE	10/10/05	10/10/05	051010L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	105	103	84-120	2	0-8	
Carbon Tetrachloride	80	83	63-147	4	0-10	
Chlorobenzene	105	104	89-119	0	0-7	
1,2-Dichlorobenzene	104	104	89-119	0	0-9	
1,1-Dichloroethene	97	94	77-125	4	0-16	
Toluene	106	104	83-125	2	0-9	
Trichloroethene	104	103	89-119	2	0-8	
Vinyl Chloride	92	88	63-135	5	0-13	
Methyl-t-Butyl Ether (MTBE)	87	86	82-118	1	0-13	
Tert-Butyl Alcohol (TBA)	80	80	46-154	1	0-32	
Diisopropyl Ether (DIPE)	100	99	81-123	1	0-11	
Ethyl-t-Butyl Ether (ETBE)	91	91	74-122	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	94	94	76-124	0	0-10	
Ethanol	105	99	60-138	6	0-32	

RPD - Relative Percent Difference , CL - Control Limit



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## Quality Control - LCS/LCS Duplicate

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ENVIRONMENTAL LABORATORY

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0379

Project: CENCO

**Matrix: Aqueous**

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Chromium, Hexavalent	EPA 7199	099-05-123-1,568	N/A	10/06/05	101	101	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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**Environmental Quality Control - Laboratory Control Sample**  
**Laboratories, Inc.**

 ASSOCIATED  
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 ncl c

Blasland, Bouck & Lee, Inc.  
 2600 Michelson Drive, Suite 830  
 Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0379

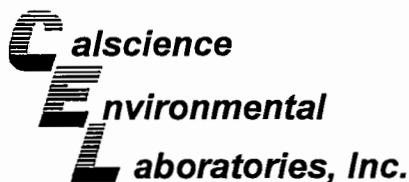
Project: CENCO

**Matrix : Aqueous**

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Sulfate	EPA 375.4	099-05-091-1,278	10/13/05	N/A	20	21	104	80-120	
Nitrate (as N)	EPA 353.3/354.1	099-04-011-343	10/06/05	N/A	0.50	0.49	97	80-120	
Iron (II)	SM3500-FeD	099-05-111-2,077	10/06/05	N/A	1.0	1.1	107	80-120	

RPD - Relative Percent Difference . CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



## Glossary of Terms and Qualifiers

ANALYSIS  
ACCREDITED  
BY A2LA  
nel c

Work Order Number: 05-10-0379

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



CALSCIENCE ENVIRONMENTAL  
LABORATORIES, INC.

7440 LINCOLN WAY  
GARDEN GROVE, CA 92841-1427  
TEL: (714) 895-5494 • FAX: (714) 894-7501

## CHAIN OF CUSTODY RECORD

Date \_\_\_\_\_

Page 1 of 1

LABORATORY CLIENT: <b>BLASLAND, BOUCK &amp; LEE, INC.</b>						CLIENT PROJECT NAME / NUMBER: <b>CENCO</b>		P.O. NO.:	
ADDRESS: <b>2600 MICHELSON DRIVE</b>						PROJECT CONTACT: <b>JENNIFER WILEY</b>		LAB USE ONLY <b>✓ 0 - 0 3 7 4 2 0</b>	
CITY <b>IRVINE</b>		STATE <b>CA</b>	ZIP <b>92612</b>	SAMPLER(S): (SIGNATURE) <i>Mylene Smay</i>		COELT LOG CODE <b>CS79</b>		COOLER RECEIPT <b>✓ ✓ ✓ ✓</b>	
TEL: <b>949-474-9052</b> FAX: <b>949-474-9345</b> E-MAIL: <b>STANDARD</b>						TEMP = <b>60</b>			
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS						REQUESTED ANALYSES			
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input type="checkbox"/> RWQCB REPORTING FORMS <input type="checkbox"/> COELT EDF <input type="checkbox"/>									
SPECIAL INSTRUCTIONS:									

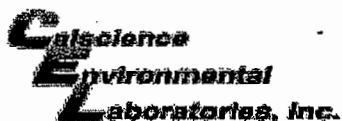
LAB USE ONLY	SAMPLE ID	FIELD POINT NAME (FOR COELT EDF)	SAMPLING		MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEx / MTBE (8260B) or	OXYGENATES (8260B)	VOCs (8260B)	5035 ENCORE PREP	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	CAC T22 METALS (6010B) / 747	PNAs (8310) or (8270C)	VOCs (TO-14A) or (TO-15)	TPH(G) (TO-3M)	Cr <sub>6</sub> (7199)	FERRIC IRON (3500)	NITRATE (352.1)	SULFATE (375.4)	ALKALINITY (310.1)	METHANE (25SK 175M)
			DATE	TIME			TPH (G)	TPH (D) or	BTEx / MTBE (8260B) or	OXYGENATES (8260B)	VOCs (8260B)	5035 ENCORE PREP	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	CAC T22 METALS (6010B) / 747	PNAs (8310) or (8270C)	VOCs (TO-14A) or (TO-15)	TPH(G) (TO-3M)	Cr <sub>6</sub> (7199)	FERRIC IRON (3500)	NITRATE (352.1)	SULFATE (375.4)	ALKALINITY (310.1)	METHANE (25SK 175M)
	TB100605		10/6/05	—	W	2	X			X	X														
	MW-603-1005		10/6/05	0905	GW	7	X			X	X										X				
	W-4-1005		10/6/05	1115	GW	7	X			X	X										X				
	W-1-1005		10/6/05	1215	GW	7	X			X	X										X				
	MW-105-1005		10/6/05	1400	GW	7	X			X	X										X				
	MW-105-1005-D		10/6/05	1400	GW	7	X			X	X										X				
	MW-205-1005		10/6/05	1500	GW	10	X			X	X										X	X	X	X	
	W-8-1005		10/6/05	1625	GW	7	X			X	X										X				

Belinquished by: (Signature) <i>Mylene Smay</i>	Received by: (Signature) <i>John CEC</i>	Date: <u>10/6/05</u>	Time: <u>1700</u>
Relinquished by: (Signature) <i>John</i>	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) <i>John</i>	Received for Laboratory by: (Signature) <i>Sharianna LBB</i>	Date: <u>10/6/05</u>	Time: <u>1740</u>

DISTRIBUTION: When with final report, Green to file, Yellow to Client.

Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

10/20/04 Revision

WORK ORDER #: 05 - 10 - 03 79  
268

Cooler 1 of 1

**SAMPLE RECEIPT FORM**

CLIENT: BBL, INC

DATE: 10/06/05

**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**

- Chilled, cooler with temperature blank provided.  
 Chilled, cooler without temperature blank.  
 Chilled and placed in cooler with wet ice.  
 Ambient and placed in cooler with wet ice.  
 Ambient temperature.

3.6 °C Temperature blank.

**LABORATORY (Other than Calscience Courier):**

- °C Temperature blank.  
 °C IR thermometer.  
 Ambient temperature.

Initial: Tm

**CUSTODY SEAL INTACT:**

Sample(s): \_\_\_\_\_ Cooler: \_\_\_\_\_ No (Not Intact) : \_\_\_\_\_ Not Applicable (N/A):   
 Initial: Tm

**SAMPLE CONDITION:**

Yes	No	N/A
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- Chain-Of-Custody document(s) received with samples.....  .....  
 Sample container label(s) consistent with custody papers.....  .....  
 Sample container(s) intact and good condition.....  .....  
 Correct containers for analyses requested.....  .....  
 Proper preservation noted on sample label(s).....  .....  
 VOA vial(s) free of headspace. ....  .....  
 Tedlar bag(s) free of condensation.....  .....

Initial: Tm

**COMMENTS:**


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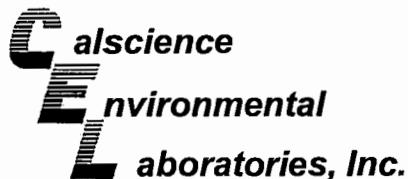
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October 17, 2005

Jennifer Wiley  
Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Subject: **Calscience Work Order No.: 05-10-0450**  
Client Reference: **CENCO**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/7/2005 and analyzed in accordance with the attached chain-of-custody.

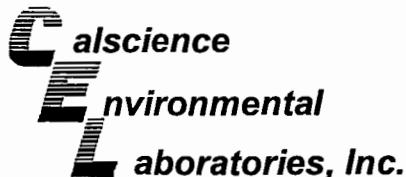
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that appears to read "Stephen Nowak".

Calscience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: N/A  
Method: RSK-175M

Project: CENCO

Page 1 of 1

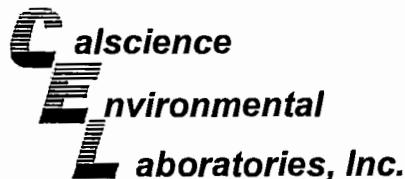
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-104A-1005	05-10-0450-3	10/07/05	Aqueous	N/A	10/12/05	051012L01

Parameter	Result	RL	DF	Qual	Units
Methane	69.5	1.0	1		ug/L

Method Blank	099-12-010-1,130	N/A	Aqueous	N/A	10/12/05	051012L01
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Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-204-1005	05-10-0450-1	10/07/05	Aqueous	10/12/05	10/13/05	051012B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	340	100	1		ug/L
<u>Surrogates:</u>					
1,4-Bromofluorobenzene	99	49-133			

MW-104A-1005	05-10-0450-3	10/07/05	Aqueous	10/12/05	10/13/05	051012B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>					
1,4-Bromofluorobenzene	93	49-133			

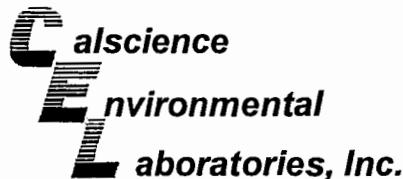
MW-201-1005	05-10-0450-4	10/07/05	Aqueous	10/12/05	10/13/05	051012B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	3400	100	1		ug/L
<u>Surrogates:</u>					
1,4-Bromofluorobenzene	165	49-133		2	

MW-7-1005	05-10-0450-5	10/07/05	Aqueous	10/12/05	10/13/05	051012B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>					
1,4-Bromofluorobenzene	94	49-133			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: DHS LUFT

Project: CENCO

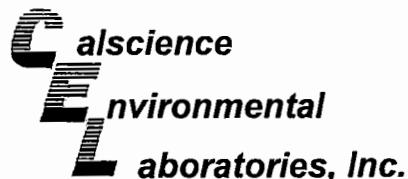
Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	098-03-006-7661	N/A	Aqueous	10/12/05	10/12/05	051012B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
Surrogates:		REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	86		49-133		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

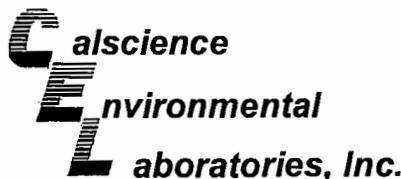
Project: CENCO

Page 1 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-204-1005	05-10-0450-1	10/07/05	Aqueous	10/11/05	10/12/05	051011L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	5.7	0.5	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	4.2	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	1.1	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	1.1	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	2.3	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	1.2	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	2.1	1.0	1	
1,2-Dichloroethane	1.6	0.5	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	3.4	1.0	1		Tert-Butyl Alcohol (TBA)	90	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Dilisopropyl Ether (DPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	110	74-146		
Toluene-d8	97	88-112			1,4-Bromofluorobenzene	94	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

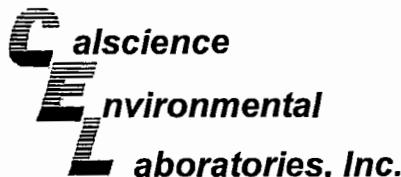
Project: CENCO

Page 2 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
TB100705	05-10-0450-2	10/07/05	Aqueous	10/10/05	10/10/05	051010L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (Dipe)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	96	74-140			1,2-Dichloroethane-d4	108	74-146		
Toluene-d8	95	88-112			1,4-Bromofluorobenzene	92	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

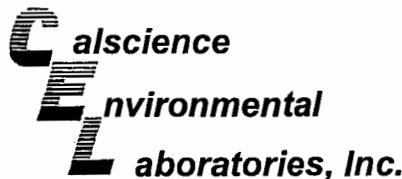
Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

Page 3 of 7

Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
MW-104A-1005		05-10-0450-3	10/07/05	Aqueous	10/11/05	10/12/05	051011L02		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	3.4	1.0	1		Tert-Butyl Alcohol (TBA)	83	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	98	74-140			1,2-Dichloroethane-d4	108	74-146		
Toluene-d8	98	88-112			1,4-Bromofluorobenzene	94	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

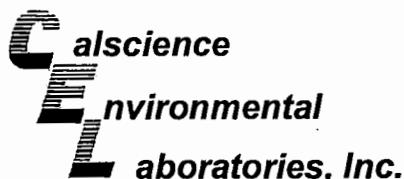
Project: CENCO

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-201-1005	05-10-0450-4	10/07/05	Aqueous	10/10/05	10/10/05	051010L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	93	50	5		c-1,3-Dichloropropene	ND	2.5	5	
Benzene	740	2	5		t-1,3-Dichloropropene	ND	2.5	5	
Bromobenzene	ND	5.0	5		Ethylbenzene	470	5	5	
Bromoform	ND	5.0	5		2-Hexanone	ND	50	5	
Bromochloromethane	ND	5.0	5		Isopropylbenzene	85	5	5	
Bromodichloromethane	ND	5.0	5		p-Isopropyltoluene	21	5	5	
Bromomethane	ND	50	5		Methylene Chloride	ND	50	5	
2-Butanone	ND	50	5		4-Methyl-2-Pentanone	ND	50	5	
n-Butylbenzene	15	5	5		Naphthalene	120	50	5	
sec-Butylbenzene	16	5	5		n-Propylbenzene	86	5	5	
tert-Butylbenzene	ND	5.0	5		Styrene	ND	5.0	5	
Carbon Disulfide	ND	50	5		1,1,1,2-Tetrachloroethane	ND	5.0	5	
Carbon Tetrachloride	ND	2.5	5		1,1,2,2-Tetrachloroethane	ND	5.0	5	
Chlorobenzene	ND	5.0	5		Tetrachloroethene	ND	5.0	5	
Chloroethane	ND	5.0	5		Toluene	37	5	5	
Chloroform	ND	5.0	5		1,2,3-Trichlorobenzene	ND	5.0	5	
Chloromethane	ND	50	5		1,2,4-Trichlorobenzene	ND	5.0	5	
2-Chlorotoluene	ND	5.0	5		1,1,1-Trichloroethane	ND	5.0	5	
4-Chlorotoluene	ND	5.0	5		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	5	
Dibromochloromethane	ND	5.0	5		1,1,2-Trichloroethane	ND	5.0	5	
1,2-Dibromo-3-Chloropropane	ND	25	5		Trichloroethene	ND	5.0	5	
1,2-Dibromoethane	ND	5.0	5		Trichlorofluoromethane	ND	50	5	
Dibromomethane	ND	5.0	5		1,2,3-Trichloropropane	ND	25	5	
1,2-Dichlorobenzene	ND	5.0	5		1,2,4-Trimethylbenzene	33	5	5	
1,3-Dichlorobenzene	ND	5.0	5		1,3,5-Trimethylbenzene	16	5	5	
1,4-Dichlorobenzene	ND	5.0	5		Vinyl Acetate	ND	50	5	
Dichlorodifluoromethane	ND	5.0	5		Vinyl Chloride	ND	2.5	5	
1,1-Dichloroethane	ND	5.0	5		p/m-Xylene	73	5	5	
1,2-Dichloroethane	34	2	5		o-Xylene	18	5	5	
1,1-Dichloroethene	ND	5.0	5		Methyl-t-Butyl Ether (MTBE)	ND	5.0	5	
c-1,2-Dichloroethene	49	5	5		Tert-Butyl Alcohol (TBA)	130	50	5	
t-1,2-Dichloroethene	ND	5.0	5		Diisopropyl Ether (DIPE)	ND	10	5	
1,2-Dichloropropane	ND	5.0	5		Ethyl-t-Butyl Ether (ETBE)	ND	10	5	
1,3-Dichloropropane	ND	5.0	5		Tert-Amyl-Methyl Ether (TAME)	ND	10	5	
2,2-Dichloropropane	ND	5.0	5		Ethanol	ND	500	5	
1,1-Dichloropropene	ND	5.0	5						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	94	74-140			1,2-Dichloroethane-d4	99	74-146		
Toluene-d8	100	88-112			1,4-Bromofluorobenzene	95	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

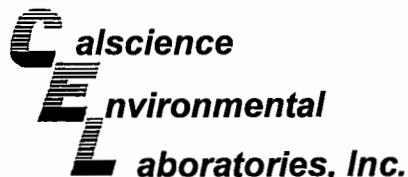
Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

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Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
W-7-1005	05-10-0450-5			10/07/05	Aqueous	10/11/05	10/12/05	051011L02	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
Dibromofluoromethane	97	74-140			1,2-Dichloroethane-d4	107	74-146		
Toluene-d8	99	88-112			1,4-Bromofluorobenzene	96	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



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Irvine, CA 92612-6520

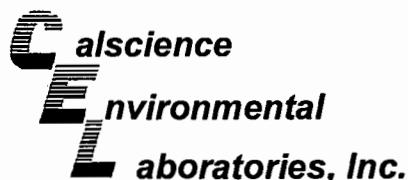
Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

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Client Sample Number		Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID		
Method Blank		099-10-006-15,935	N/A	Aqueous	10/10/05	10/10/05	051010L01		
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromochloromethane	ND	1.0	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromomethane	ND	10	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromomethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	97	74-140			1,2-Dichloroethane-d4	104	74-146		
Toluene-d8	99	88-112			1,4-Bromofluorobenzene	95	74-110		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

An ISO/IEC 17025 Accredited Laboratory

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2600 Michelson Drive, Suite 830  
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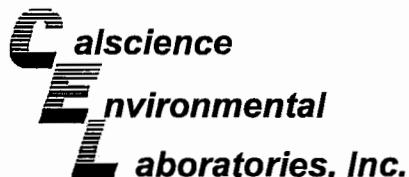
Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: CENCO

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Client Sample Number	Lab Sample Number			Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
Method Blank	099-10-006-15,949			N/A	Aqueous	10/11/05	10/12/05	051011L02	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	1.0	1		Ethylbenzene	ND	1.0	1	
Bromoform	ND	1.0	1		2-Hexanone	ND	10	1	
Bromomethane	ND	10	1		Isopropylbenzene	ND	1.0	1	
Bromodichloromethane	ND	1.0	1		p-Isopropyltoluene	ND	1.0	1	
Bromochloromethane	ND	1.0	1		Methylene Chloride	ND	10	1	
2-Butanone	ND	10	1		4-Methyl-2-Pentanone	ND	10	1	
n-Butylbenzene	ND	1.0	1		Naphthalene	ND	10	1	
sec-Butylbenzene	ND	1.0	1		n-Propylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1		Styrene	ND	1.0	1	
Carbon Disulfide	ND	10	1		1,1,1,2-Tetrachloroethane	ND	1.0	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
Chlorobenzene	ND	1.0	1		Tetrachloroethene	ND	1.0	1	
Chloroethane	ND	1.0	1		Toluene	ND	1.0	1	
Chloroform	ND	1.0	1		1,2,3-Trichlorobenzene	ND	1.0	1	
Chloromethane	ND	10	1		1,2,4-Trichlorobenzene	ND	1.0	1	
2-Chlorotoluene	ND	1.0	1		1,1,1-Trichloroethane	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
Dibromochloromethane	ND	1.0	1		1,1,2-Trichloroethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Trichlorofluoromethane	ND	10	1	
Dibromomethane	ND	1.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,2-Dichlorobenzene	ND	1.0	1		1,2,4-Trimethylbenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1		1,3,5-Trimethylbenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1		Vinyl Acetate	ND	10	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	1.0	1		p/m-Xylene	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	1.0	1	
1,1-Dichloroethene	ND	1.0	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
1,2-Dichloropropane	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	100	1	
1,1-Dichloropropene	ND	1.0	1						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>		
Dibromofluoromethane	95	74-140		1,2-Dichloroethane-d4	105	74-146			
Toluene-d8	98	88-112		1,4-Bromofluorobenzene	93	74-110			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

ANALYTICAL REPORT  
CENCO

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450

Project: CENCO

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-204-1005	05-10-0450-1	10/07/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/07/05	EPA 7199

MW-104A-1005	05-10-0450-3	10/07/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	10/07/05	EPA 353.3/354.1
Sulfate	89	10	5		mg/L	N/A	10/14/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/07/05	EPA 7199
Alkalinity, Total (as CaCO <sub>3</sub> )	570	5.0	1		mg/L	N/A	10/13/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	10/07/05	SM3500-FeD

MW-201-1005	05-10-0450-4	10/07/05	Aqueous
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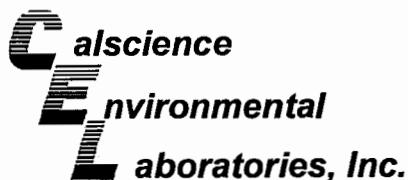
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/07/05	EPA 7199

W-7-1005	05-10-0450-5	10/07/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/07/05	EPA 7199

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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## Analytical Report



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450

Project: CENCO

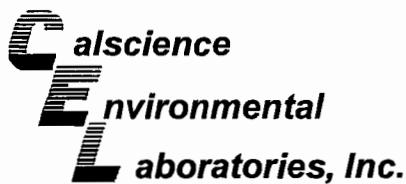
Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Method Blank		N/A	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	10/07/05	EPA 353.3/354.1
Sulfate	ND	2.0	1		mg/L	N/A	10/14/05	EPA 375.4
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	10/07/05	EPA 7199
Iron (II)	ND	0.10	1		mg/L	N/A	10/07/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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### Quality Control - Spike/Spike Duplicate

AQUREL CENCO ANALYTICAL  
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Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

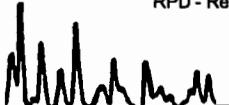
Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: DHS LUFT

Project CENCO

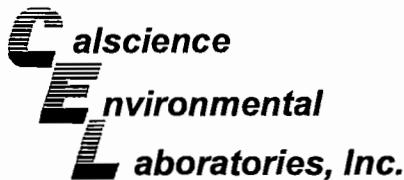
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0462-2	Aqueous	GC 29	10/12/05	10/12/05	051012S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	100	100	70-112	0	0-17	

RPD - Relative Percent Difference , CL - Control Limit



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## Quality Control - Spike/Spike Duplicate

ANALYSES ACCORDING  
TO THE ANALYST'S  
best knowledge  
and belief

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B

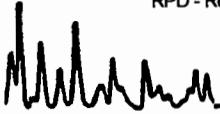
## Project CENCO

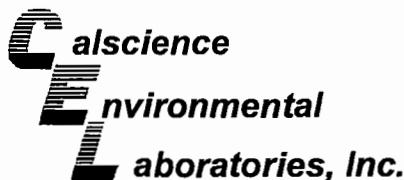
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0394-2	Aqueous	GC/MS S	10/10/05	10/10/05	051010S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	104	88-118	2	0-7	
Carbon Tetrachloride	93	97	67-145	5	0-11	
Chlorobenzene	97	101	88-118	4	0-7	
1,2-Dichlorobenzene	94	98	86-116	5	0-8	
1,1-Dichloroethene	99	102	70-130	3	0-25	
Toluene	97	101	87-123	4	0-8	
Trichloroethene	98	99	79-127	1	0-10	
Vinyl Chloride	91	93	69-129	2	0-13	
Methyl-t-Butyl Ether (MTBE)	95	98	71-131	3	0-13	
Tert-Butyl Alcohol (TBA)	92	99	36-168	8	0-45	
Diisopropyl Ether (DIPE)	98	101	81-123	3	0-9	
Ethyl-t-Butyl Ether (ETBE)	97	96	72-126	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	101	103	72-126	2	0-12	
Ethanol	76	79	53-149	4	0-31	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - Spike/Spike Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: 10/07/05  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B

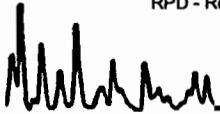
Project CENCO

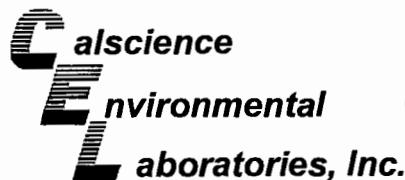
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0397-3	Aqueous	GC/MS S	10/11/05	10/12/05	051011S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	107	107	88-118	0	0-7	
Carbon Tetrachloride	97	94	67-145	3	0-11	
Chlorobenzene	100	98	88-118	2	0-7	
1,2-Dichlorobenzene	96	95	86-116	1	0-8	
1,1-Dichloroethene	104	104	70-130	0	0-25	
Toluene	102	102	87-123	0	0-8	
Trichloroethene	102	102	79-127	0	0-10	
Vinyl Chloride	98	97	69-129	1	0-13	
Methyl-t-Butyl Ether (MTBE)	100	99	71-131	1	0-13	
Tert-Butyl Alcohol (TBA)	102	105	36-168	4	0-45	
Diisopropyl Ether (DIPE)	106	105	81-123	2	0-9	
Ethyl-t-Butyl Ether (ETBE)	98	96	72-126	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	99	101	72-126	3	0-12	
Ethanol	86	89	53-149	4	0-31	

RPD - Relative Percent Difference . CL - Control Limit

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## Quality Control - Spike/Spike Duplicate

ANALYSED IN ACCORDANCE  
WITH THE  
TESTS  
STATED  
HEREIN  
BY  
CALS  
SCIENCE  
ENVIRONMENTAL  
LABORATORIES, INC.

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0450

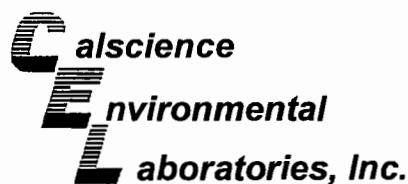
Project: CENCO

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Sulfate	EPA 375.4	MW-104A-1005	10/14/05	N/A	78	80	70-130	1	0-25	
Chromium, Hexavalent	EPA 7199	05-10-0406-1	10/07/05	N/A	104	104	70-130	0	0-25	
Nitrate (as N)	EPA 353.3/354.1	MW-104A-1005	10/07/05	N/A	106	108	70-130	2	0-25	
Iron (II)	SM3500-FeD	MW-104A-1005	10/07/05	N/A	105	102	70-130	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit

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### Quality Control - Duplicate

ANALYTICAL  
 SERVICES  
 INC.  
 7440 Lincoln Way  
 Garden Grove, CA 92841-1427  
 TEL:(714) 895-5494 . FAX: (714) 894-7501

Blasland, Bouck & Lee, Inc.  
 2600 Michelson Drive, Suite 830  
 Irvine, CA 92612-6520

Date Received: N/A  
 Work Order No: 05-10-0450

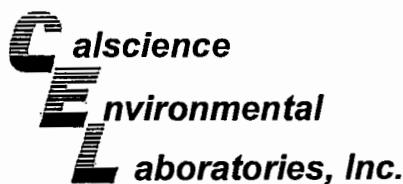
Project: CENCO

**Matrix: Aqueous**

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO <sub>3</sub> )	SM 2320B	MW-104A-1005	10/13/05	570	580	0	0-25	
Bicarbonate (as CaCO <sub>3</sub> )	SM 2320B	MW-104A-1005	10/13/05	570	580	2	0-25	
Carbonate (as CaCO <sub>3</sub> )	SM 2320B	MW-104A-1005	10/13/05	ND	ND	NA	0-25	
Hydroxide (as CaCO <sub>3</sub> )	SM 2320B	MW-104A-1005	10/13/05	ND	ND	NA	0-25	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0450  
Preparation: N/A  
Method: RSK-175M

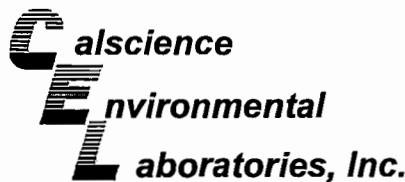
Project: CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-010-1,130	Aqueous	GC 14	N/A	10/12/05	051012L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	97	96	79-109	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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### Quality Control - LCS/LCS Duplicate

ANALYSIS ACCORDING  
TO THE  
nel c

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received:	N/A
Work Order No:	05-10-0450
Preparation:	EPA 5030B
Method:	DHS LUFT

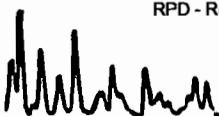
**Project: CENCO**

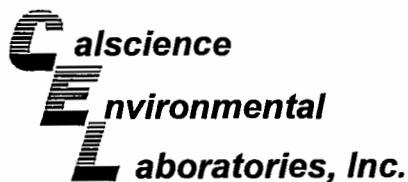
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-006-7,661	Aqueous	GC 29	10/12/05	10/12/05	051012B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	106	105	72-114	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501





## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received: N/A  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B

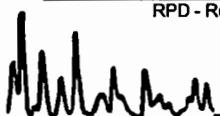
Project: CENCO

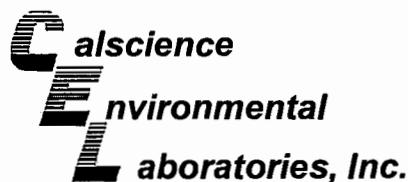
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-15,935	Aqueous	GC/MS S	10/10/05	10/10/05	051010L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	105	104	84-120	0	0-8	
Carbon Tetrachloride	99	98	63-147	1	0-10	
Chlorobenzene	101	102	89-119	1	0-7	
1,2-Dichlorobenzene	100	99	89-119	1	0-9	
1,1-Dichloroethene	105	106	77-125	1	0-16	
Toluene	101	102	83-125	1	0-9	
Trichloroethene	101	101	89-119	1	0-8	
Vinyl Chloride	100	100	63-135	0	0-13	
Methyl-t-Butyl Ether (MTBE)	97	98	82-118	1	0-13	
Tert-Butyl Alcohol (TBA)	81	86	46-154	5	0-32	
Diisopropyl Ether (DIPE)	102	102	81-123	0	0-11	
Ethyl-t-Butyl Ether (ETBE)	96	99	74-122	3	0-12	
Tert-Amyl-Methyl Ether (TAME)	99	103	76-124	4	0-10	
Ethanol	82	86	60-138	5	0-32	

RPD - Relative Percent Difference , CL - Control Limit

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## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

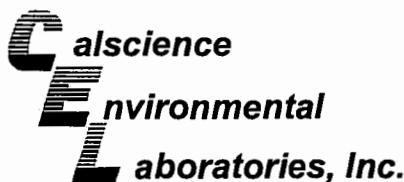
Date Received: N/A  
Work Order No: 05-10-0450  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: CENCO

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-15,949	Aqueous	GC/MS S	10/11/05	10/12/05	051011L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	108	108	84-120	0	0-8	
Carbon Tetrachloride	97	97	63-147	1	0-10	
Chlorobenzene	102	101	89-119	1	0-7	
1,2-Dichlorobenzene	99	99	89-119	1	0-9	
1,1-Dichloroethene	106	103	77-125	3	0-16	
Toluene	103	102	83-125	1	0-9	
Trichloroethene	103	102	89-119	0	0-8	
Vinyl Chloride	98	97	63-135	1	0-13	
Methyl-t-Butyl Ether (MTBE)	100	99	82-118	1	0-13	
Tert-Butyl Alcohol (TBA)	91	91	46-154	0	0-32	
Diisopropyl Ether (DIPE)	106	105	81-123	1	0-11	
Ethyl-t-Butyl Ether (ETBE)	99	104	74-122	5	0-12	
Tert-Amyl-Methyl Ether (TAME)	105	109	76-124	4	0-10	
Ethanol	85	79	60-138	8	0-32	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

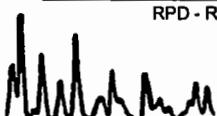
Date Received: N/A  
Work Order No: 05-10-0450

Project: CENCO

**Matrix: Aqueous**

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Chromium, Hexavalent	EPA 7199	099-05-123-1,569	N/A	10/07/05	101	100	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



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**Environmental Quality Control - Laboratory Control Sample**

Blasland, Bouck & Lee, Inc.  
2600 Michelson Drive, Suite 830  
Irvine, CA 92612-6520

Date Received:

N/A

Work Order No:

05-10-0450

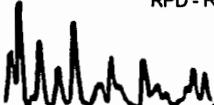
Project: CENCO

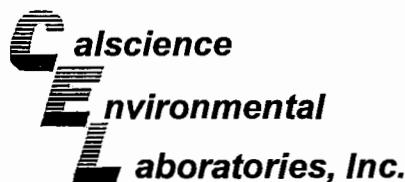
**Matrix : Aqueous**

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Sulfate	EPA 375.4	099-05-091-1,279	10/14/05	N/A	20	19	97	80-120	
Nitrate (as N)	EPA 353.3/354.1	099-04-011-344	10/07/05	N/A	0.50	0.50	100	80-120	
Iron (II)	SM3500-FeD	099-05-111-2,079	10/07/05	N/A	1.0	1.0	104	80-120	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501





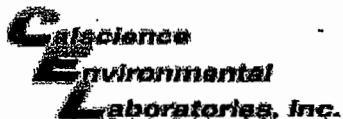
## Glossary of Terms and Qualifiers



Work Order Number: 05-10-0450

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





**WORK ORDER #:**

05 -  0 - 0 4 5 0

## Cooler \ of \

## **SAMPLE RECEIPT FORM**

**CLIENT:** BBL

DATE: 10-7-05

**TEMPERATURE – SAMPLES RECEIVED BY:**

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
  - Chilled, cooler without temperature blank.
  - Chilled and placed in cooler with wet ice.
  - Ambient and placed in cooler with wet ice.
  - Ambient temperature.

### 3.2 °C Temperature blank.

Initial: WB

**LABORATORY (Other than Calscience Courier):**

- °C Temperature blank.  
       °C IR thermometer.  
Ambient temperature.

**CUSTODY SEAL INTACT:**

Sample(s): \_\_\_\_\_ Cooler: \_\_\_\_\_ No (Not Intact) : \_\_\_\_\_ Not Applicable (N/A): \_\_\_\_\_  
Initial: WVB

**SAMPLE CONDITION:**

Chain-Of-Custody document(s) received with samples..... / .....  
Sample container label(s) consistent with custody papers..... / .....  
Sample container(s) intact and good condition..... / .....  
Correct containers for analyses requested..... / .....  
Proper preservation noted on sample label(s)..... / .....  
VOA vial(s) free of headspace..... / .....  
Tedlar bag(s) free of condensation..... / .....

Initial: WV

**COMMENTS:**

## ***Appendix C***

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### **Historical Groundwater Analytical Results**

